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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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REPORT OF THE LIGHT-HOUSE BOARD.

The annual report of the United States Light-House Board shows that at the end of the fiscal year there were under the control of the light-house establishment the following aids to navigation:

Light-houses and beacon lights, 1,306; light vessels in position, 45; light vessels for relief, 8; electric lighted buoys in position, 11; gas lighted buoys in position, 91; fog signals operated by steam, caloric or oil engines, 179; fog signals operated by clock-work, 222; post lights, 1,827; day or unlighted beacons, 752; whistling buoys in position, 77; bell buoys in position, 122; other buoys in position, including pile buoys and stakes in Fifth district and buoys in Alaskan waters, 4,780.

In the construction, care and maintenance of these aids to navigation there were employed: Steam tenders, 34; steam launches, 11; sailing tenders, 2; light keepers, 1,420; other employes, including crews of light-ships and tenders, 1,428; laborers in charge of post lights, 1,574.

The board asks for an appropriation of \$90,000 to reconstruct a buoy system and man the light-houses of Porto Rico, and \$25,000 for the maintenance of the Hawaiian system. The board also asks for other appropriations as follows: Supplies for light-houses, \$502,886; improvements at light-houses, \$750,000; salaries of light keepers, fuel, rent, etc., \$883,000; expenses of light vessels, \$525,000; expenses of fog signals, \$190,000; lighting of rivers, \$390,000.

Authority to construct five new light vessels and several new light tenders also is asked. The report says that, while the board does not purpose either to gather or disseminate marine news, it is desirous in the interests of commerce and navigation, as well as economy, to be put into early and quick communication with its outlying light vessels and light-houses, and it is for this purpose alone that it asks an appropriation to enable it to install a wireless system of telegraphy between such ports in the light-house establishment as shall seem to be most necessary.

The Montreal Transportation Co. have during the present season added to their fleet four boats, capable of carrying the aggregate of 204,000 bushels of grain. Two of these are old boats rebuilt, with added capacity. They are capable of carrying from Kingston to Montreal 30,000 bushels each. The other two are sister boats. The last one launched was the Quebec. Her capacity is larger than that of any barge or propeller that has ever run between Kingston and Montreal.

A DEPARTMENT OF COMMERCE.

One of the questions which will be found in shape about the time Congress convenes is the creation of a new executive department to be known as the department of commerce. Manufacturing and mercantile interests are advocating the establishment of this cabinet office and recent affairs of state are combining to give momentum to the effort. Commerce with colonial possessions and the possibility of reciprocity treaties with foreign nations, not to mention the rapidly expanding general trade of the country, are subjects that have risen greatly in prominence in recent years, and almost month by month.

While a sentiment seems to be gaining among congressmen that this addition to the President's cabinet is desirable, the scope of the proposed department has not taken definite shape. Bureaus of interstate commerce, navigation, customs, revenue cutter, life saving service, steamboat inspection and statistics would naturally belong to the department of commerce. In the matter of commercial statistics it may be remarked that the bureau of the treasury department, which now has that matter in charge, has improved conspicuously within the past year. New and valuable compilations are appearing in the monthly summary of commerce and finances, prepared in the bureau of statistics, which present striking phases of the vast internal commerce of the United States. This of course merely an incident to the phenomenal growth of that commerce, but it points to the need of this new cabinet position.

NEW YORK STATE CANALS.

The state canals will close for traffic at midnight on Saturday, November 30. That is the plan of Superintendent John N. Partridge of the State Department of Public Works, and it will be announced in a formal notice unless conditions arise which would make a change of date necessary.

After that date no boats will be permitted to enter the state waterways, but during the succeeding few days every effort will be made to afford all boats in the canals an opportunity to reach tide water unless prevented by ice formations.

The season has been an exceedingly profitable one to canal boatmen judging from the tonnage carried. Although the canals opened two and one-half weeks later this year than in the spring of 1900, yet the total number of tons carried up to November 1 this year was 2,942,347, as compared with 2,868,526 carried up to the same date last year. The actual increase is 73,821 tons and the estimated increase had the opening been as early this year, 19,472 tons.

The canals in 1900 closed on December 1, practically the same time as they will close this year. The total tonnage carried last year was 3,345,941. This will be eclipsed this year if the tie traffic does not experience a great falling off during the current month, which result is not likely, as November is always among the banner months of the canal season.

LAKE LEVELS FOR OCTOBER.

The report of the United States lake survey of the mean depth of the lakes for the month of October is as follows: Lake Superior, .47 foot lower than during the same month last year and .07 lower than during October, 1895; the year of low water on the lakes; Lakes Huron and Michigan were .11 foot lower than during October last year and 1.07 feet higher than during October, 1895; Lake Erie was .42 foot lower than during October last year and .53 foot higher than during October, 1895. These figures show the present fall from Lake Huron to Lake Erie to be .31 foot greater than a year ago.

OCEAN TOW BARGES.

The steel sea lighter sometimes rigged with single-sail masts and with a carrying capacity of from 500 to 1,350 tons dead weight, is an important factor in the North Sea and Baltic trade. German steamship companies first made extensive use of them shortly after the opening of the North Sea canal, making an easy water route between the North and Baltic Seas. Today these lighters are in use in England, Russia, Norway, Sweden and Denmark. The North German Lloyd and the Hamburg-American Line have each a small fleet of lighters.

Denmark has a fleet plying between Germany, Norway, and Sweden. Only quite recently, a local German steamship company had two steel lighters of about 700 tons dead weight built, to run between Sweden and Stettin. The small towing steamer is continually under way, leaving Stettin with one empty lighter and returning with a full one.

The principal advantages claimed for sea lighters are: Small cost of operating (crew consists of three or four men), low draft, rapidity of discharging or taking on cargo (there being practically one large hatch), small capital invested when compared with steamers of the same tonnage, and small expenses of maintenance.

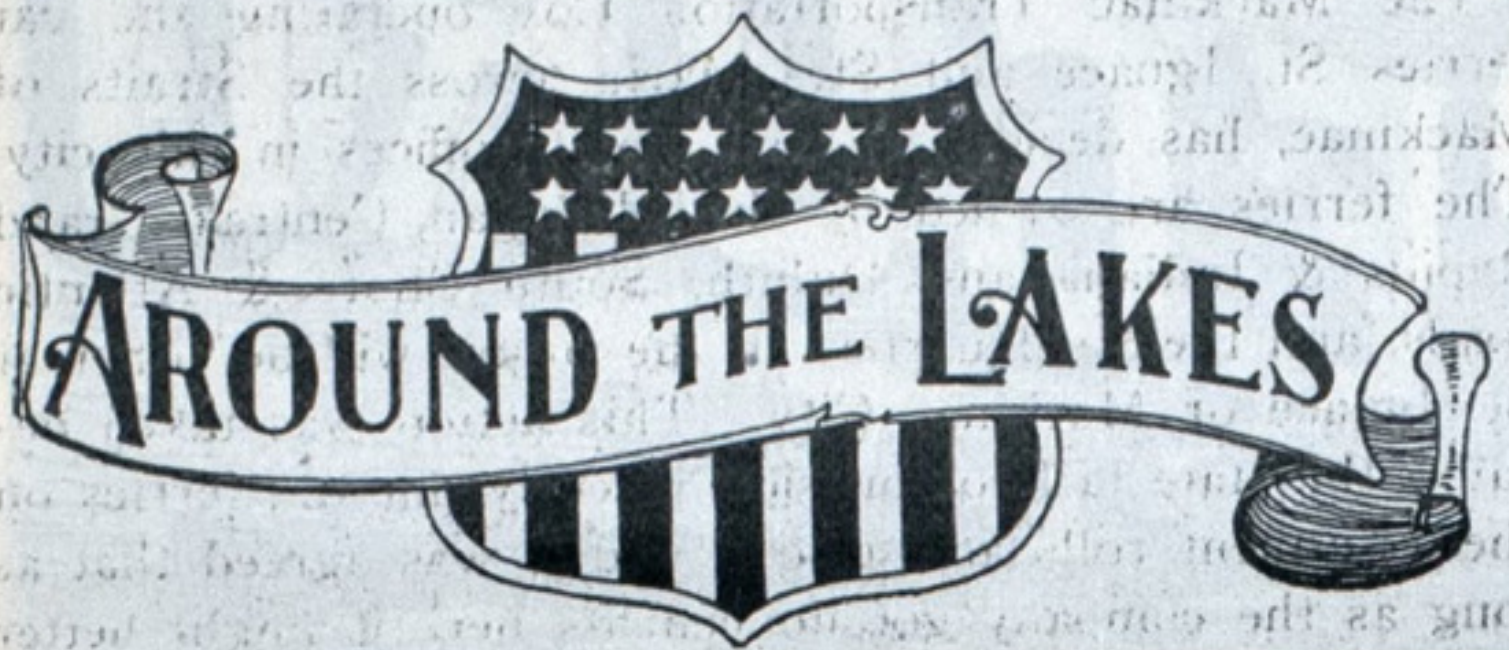
All the principal ports of Germany have sea-lighter service. The North Sea canal, the Dortmund-Ems and the Elbe-Trave canal greatly facilitate the practical use of these lighters. On the Rhine they travel as far as Cologne, and in several instances they have gone by sea to Bordeaux, France.

The German-Russia Naptha Import Co. is now contemplating the building of tank lighters of about 1,400 tons carrying capacity to be used in distributing the product throughout middle Europe.

SPRINGS FOR STEERING GEAR CHAINS.

A great deal of trouble is experienced on board ship with the steering-gear chains. The frequent shocks on the rudder are taken by the chains. These are usually provided with spring buffers to relieve the chains from the shock, and also with tightening screws to take up the slack due to the stretching of the chains or rods.

The Vulcan patent spring buffers for steering-gear chains consists of a square section steel spiral spring, which works upon a large socket made to fit the inside diameter of the spring. This socket ensures that the spring is central and alignable, and it effectually prevents buckling. The end of the socket into which the tightening screw passes is reduced in its diameter for a distance slightly greater than the travel due to the compression of the spring. The hole through the end plate is bored out to fit the reduced end of the socket; so that in the event of a broken spring the shoulder of the socket comes in contact with the end plate, and may be so worked until the broken spring is replaced by a new one. The inside of the socket is screw-cut the entire length of reduced part which is about 7 inches long to receive the tightening screw, which is made of exceptionally large diameter and length, and is provided with a lock nut to prevent the screw from working backwards. This simple and ingenious combination of spring buffer and tightening screw does away entirely with the necessity of fitting tightening screws on each side of the steering chains. It also takes up less room, and is a neater and more handy arrangement. Another important improvement is that the thread of the screws are properly protected. The Vulcan Engineering Co., Sunderland, England, has fitted a large number of these patent spring buffers, which have given entire satisfaction.



CHICAGO.

Special Correspondence to The Marine Record.

The steamer Empire State of the Barry Line has been sent to Manitowoc, where she will receive extensive repairs this winter at Burger's shipyard.

Capt. York of Peoria has let a contract to Burger Bros., Manitowoc, for a 60-foot river steamer, to ply on the Illinois river. The boat will be ready for spring delivery.

The steamer John Duncan is the first vessel of the lower lake fleet to go into winter quarters at Milwaukee. With the exception of engineers, who are laying up the machinery of the craft, the members of the crew were paid off Saturday night.

The schooner Reynard, of South Haven, carrying a party of South Haven residents, is making a trip to Florida. It is planned to take the schooner down the canal to the Illinois and Mississippi rivers and thence to Florida by the way of the Gulf of Mexico.

The Cleveland Twist Drill Co., Cleveland, O., have opened a store at 17 South Clark street, Chicago, where will be carried a full and complete stock of all the goods of their manufacture. This stock will be in charge of John G. Ladrack, who has represented the company in the West for a number of years.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, Chicago, for the week ending November 13, 1901: Prevailing wind directions for the week, south; highest velocity, 50, south, November 6; mean temperature for the week, 44 degrees; highest temperature, 66 degrees on 11th; lowest, 30 degrees on 12th.

The Empire State and Badger State have been towed around from Bay City to Milwaukee, where they will be put in service condition during the winter. It is stated that about \$40,000 will be expended on the boats and it was also thought that the work was to have been done at Bay City. Whatever brought the change about, Milwaukee people will be that much better off.

The Graham & Morton Line is said to be negotiating for a large boat to be brought to Chicago next season to take the place of the small steamers McVea and Saugatuck, under charter to the line last season. It is not stated where the new comer will be brought from, though she is said to be a fresh-water craft and of large carrying capacity, suitable for either the St. Joseph or Holland trade.

It is announced by the Graham & Morton Line that the Saugatuck-Douglass steamers will not be operated by them next year, owing to the bad condition of the harbor at Saugatuck. Mr. Morton says he thinks that Saugatuck harbor is a thing of the past and that the business to Chicago and Milwaukee will go via electric railway to Holland and there reach the boats unless a new channel is dredged.

All marine insurance on hulls and cargoes as well as freights, expires on December 5, at 12 o'clock noon, but as usual shippers can make special contracts with the underwriters, as can owners and agents of vessels. Not much insurance is written after December 5 because of the high rate asked by the underwriters on account of the extra hazardous risks, taking even an hourly chance in some instances.

Mr. Boutelle of Illinois has arranged for a conference with the President on the subject of the abrogation or amendment of the old treaty of 1817 which prohibits the building of war vessels on the Great Lakes. Why the lake shipyards should longer be excluded from competition for the construction of the smaller class of naval craft for sea service, is a question not easily answered to the satisfaction of the shipyard owners.

Second Engineer Rudolph Drumm is held in bail to the criminal court in bonds of \$400 for alleged attempt at extortion of money. Drumm, who was second engineer of the State of Michigan when she sunk, is alleged to have demanded \$600 from the Barry Bros. to secure silence on his part as to the manner in which the steamer came to be lost. He threatened to tell that Miles E. Barry in-

structed the first engineer of the craft to open or break the seacock in order that she might fill.

The Chicago passenger lines will close for the winter season this week. The Williams Line now has the City of Kalamazoo in service and she has been the only one operated by the line since the close of the summer season. The Kalamazoo went into service on April 3, and has not missed a trip since that date. The Dunkley line, operating the Petoskey to South Haven from Chicago will get another boat to run with the Petoskey next summer, at least it is the present intention to do so.

The evidence in the charges brought against the Chicago steamboat inspectors, Messrs. Richardson and Moore, by the Barry line has been forwarded to the Treasury Department at Washington, and a decision may be a long time coming. The taking of testimony lasted much longer than Special Agent Crowley had expected it would, some of the witnesses having been examined as late as last Thursday. Nothing official as to the nature of the charges has been divulged.

The schooner Jessie L. Boyce is to be libeled on a claim for \$500 preferred by Adolph Green, of Green Bay, who has the contract for building a protection wall for the Chicago & Northwestern Railway at Sheboygan. It is claimed that one night last week the captain of the Boyce shifted a scow loaded with rubble-stone lakeward 20 feet in order to make room for his vessel. This subjected the scow to the action of a heavy sea and she suffered damage besides losing part of her cargo. The actual loss sustained by Green is said to be \$300.

Capt. Dennis Sullivan, who represents the Pittsburg Steamship Co. here, has made a report of the attempt to utilize funds provided for river improvement for a windage basin, to the headquarters of his company at Duluth. Capt. Sullivan is among the number of influential marine men of this city who do not favor the plan. He says there are not boats of the size that would care to use the turning basin coming here, and, what is more if they did, big boats of the size for which it is intended, could not get that far up the river. He has much support in to better use.

It is authoritatively stated that the Pere Marquette Railroad will, in addition to letting a contract for a \$400,000 steel steam car ferry, also build two fast steel passenger steamers for service between Milwaukee and Ottawa Beach. While those connected with the company decline to discuss the subject, they do not deny the report, and one official even went so far as to acknowledge the authenticity of the statement that the boats would be built. Just when the contracts will be let is at this time a matter of speculation, but if any of the many American Ship Building Co.'s plants can give berths for the boats, the vessels will be built during the coming winter so as to be ready to go into commission when the season opens next year.

DULUTH-SUPERIOR.

Special Correspondence to The Marine Record.

The work of handling iron ore at Two Harbors is being delayed on account of the cold and stormy weather. The ore is being frozen in the pockets of the docks and is worked with great difficulty.

Lumber men in the woods are getting the highest wages ever known in this locality for the class of work. From \$35 to \$40 per month and board is paid, and yet the supply is very far from equaling the demand.

Joseph Kidd, consulting engineer and marine architect, of Duluth, has been at the "Soo" examining the Poe lock and made a survey of the broken gate, which the Pittsburg Steamship Co. will doubtless replace or at least pay for, as it was broken by one of its steamers, the Fulton.

A deal is about to be closed whereby the tug Colton will be exchanged for the lake tug Vigilant, owned by the Great Lakes Towing Co. It was expected the transfer would be made this week. Both are large tugs. The Great Lakes Towing Co. will station the Colton at the "Soo," while the Nestors can use the Vigilant, a larger and more powerful tug, to advantage in raft towing.

The sailors on many of the boats trading to Lake Superior ports are deserting to get jobs in the woods for the winter. The opportunity of going in the woods for \$30 to \$35 a month, just when the boat season is becoming especially hazardous and is about to wind up, is attractive, and the men are willing to forfeit their pay for the trip to Duluth in order to get away from the boats at this end of the route.

The lake lines have at the present time all the east bound freight they can handle, and several western roads have embargoes on certain lake lines on account of their crowded condition at the lake ports. This embargo will, in all probability, be maintained until the close of navigation, as the roads say they do not care particularly to have their cars used as storage when they have not enough to fill their daily orders.

It is the opinion of Coroner Crary, of Marquette, after consultation with lake captains who knew Capt. McDonald, that the body found the other day on the beach at Pine river, was that of the master of the lost steamer Hudson. The description of the lost skipper seems to correspond in all important particulars—age, height, and weight—though as the face was battered in there is still some doubt. The teeth of the dead man may furnish a means of identification. In the upper set all the teeth were double except three, while in the lower set all were single save the last one on either side, making a combination rarely noted.

Superior has recently been getting her full quota of anthracite with slack receipts of bituminous and there now seems every probability that there will be a shortness of the latter by the close of navigation. About three weeks yet remain for the shipment of coal to this point. It is not believed that there will be increased tonnage enough to make up the shortage in hard coal while it will be impossible to make up that in soft. The shipments of coal from this point have been very heavy during the past week and these will have to be curtailed earlier than usual on account of the shortage in the supply. The shortage means all rail coal to the Twin Cities and to other western points.

A Duluth board of trade man estimates that the probable grain shipments from the head of the lakes for the balance of the season will amount to about 15,000,000 bushels. It is reported that at least 7,000,000 bushels are under charter to go forward between November 15 and the close. It is expected that the grain movement will continue until at least December 5. After that date the insurance rate is quite prohibitive in any ordinary season. Insurance for grain in boats at present is 40 cents a \$100, but this rate will expire November 30, and then the rate of \$1 a \$100 will apply for five days. After that navigation will be practically closed to the grain movement, no matter whether there is any ice or not. The grain shipments for the balance of the season will go a long way to make up for the comparatively slow movement during the past month. It is certain that vessels will be kept at work as long as safety will permit on until the Ice King takes charge.

It is announced by the Anchor Line that contracts for three large passenger steamers are to be placed in a short time. These new boats, which are to displace the steamers India, China and Japan, on the Buffalo-Lake Superior route, will be built of steel and will be much larger than the old boats, with everything modern in their equipment. While the plans of the boats have not been announced except in a general way, it is believed that no attempt will be made to secure record-breaking speed for the ships, although they will be given power enough to maintain a reasonable schedule. Close connections will be made at Mackinac Island with the Manitou Steamship Co. from Chicago. The order for the steamers is an indication that the Anchor Line management has found it possible to make money in the Lake Superior trade which the Northern Steamship Co. abandoned last fall. The Anchor Line has not sent its boats through the middle of the lake without a stop, however, but has put into all of the principal ports on the south shore of Lake Superior, making more of a tourist trip than an express service.

The number of seagoing vessels entered inwards at the Quebec Customs House during the season of navigation in 1900, was 383. From the opening of navigation up to the 7th of November, 1901, 259 vessels entered, the number cleared outward during the season of navigation, 1900, was 185, up to the 7th November, 1901, the number was 180; the difference between the number of arrivals and clearances is accounted for by vessels entering at Quebec and subsequently proceeding to Montreal and other ports and clearing from them. The number of canal boats from the United States entered during the season of navigation, 1900, was 310, up to the 7th November, 1901, the number was 216. The number cleared for the United States during 1900 was 138, up to the 7th November, 1901, the number was 218.

CLEVELAND.

Special Correspondence to The Marine Record.

Capt. John M. Fields, compass adjuster, left here this week for San Francisco, where he will carry on his business during the winter months.

The tug Delta, owned by Ranney Bros., has been sold to the new tug line at Buffalo. The Delta is a small craft and was used in the fish trade out of this port.

The work of superintending construction of the light-house tender Hyacinth, to be built by the Jenks Ship Building Co. of Port Huron for the engineer of the ninth light-house district, will be conducted from the office of Mr. Walter Miller.

The official announcement has not been made, but it is expected that the Cleveland & Buffalo Line boats will be withdrawn from their route about November 29, when the last boat will leave this city, the last trip out of Buffalo to be made on November 30.

The steamer Paraguay left Lorain on Wednesday for Marcus Hook. The Paraguay came up from the coast during the latter part of July, and was converted into an oil boat. The Paraguay will carry oil from the Beaumont wells, in Texas, to Philadelphia, and take supplies back.

The United States Weather Bureau has been notified by the authorities of the approval of the plans for the erection of three new storm warning towers in this territory. The towers will be erected at the weather stations at Huron, Kelley's Island and Put-in Bay. New electric light signals will be placed in the towers now at Lorain, Conneaut harbor and at Fairport.

A large steel steamer built at the Lorain yards of the American Ship Building Co. to the order of J. C. Gilchrist & Co. will be launched on Saturday next. The proposed name of the boat is F. M. Osborne. She will be modern in every respect—in design of engines and other equipments. The boat will be 400 feet long, and is built for general freight use. A large party is expected from Cleveland to witness the launch.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau for the week ending November 13th: Prevailing wind direction during the week, southwest; highest velocity, 52 miles from the northwest on November 13th; mean temperature, 44; highest temperature, 62 on the 11th; lowest, 34 on the 13th. Sunrise and sunset data computed for local time: November 15th, sun rises 6:50, sets 4:40; November 18th, sun rises 6:53, sets 4:37; November 21st, sun rises 6:57, sets 4:34.

Announcement is made by the Detroit & Cleveland Line that the steamers between this city and Detroit will be withdrawn on December 10. The custom heretofore has been to run until the boats were frozen in. It has become necessary, however, to set a date on which the mail contracts may terminate, and after which freight will not be received. It is also announced that the Cleveland & Toledo Line will discontinue its service between this city and Toledo on November 28, when the State of Ohio will make her last trip. She will go into winter quarters at Detroit.

The C. C. Buckman, launched from the yards of the Craig Ship Building Co., Toledo, October 28, was named after C. C. Buckman, of Maryland, manager of the Maryland Provision and United Fruit Co., and will be used in the Boston and Porto Rico fruit trade. A sister ship, the Watson, is being built by the Craigs for the same purpose, and will be launched in a few weeks. The dimensions of the Buckman are: Length, 253.1 feet; beam, 38.4 feet. The boat was designed for freight and passenger traffic, and is owned by the Wheeler Steamship Co. She has been chartered by the United Fruit Co., of Boston, Mass.

It is fully time that the antagonism between the railroad bridgetenders and the tugmen was smoothed out. There is evil exhibited very strongly at night, while during the day, when business is being carried on, matters seem fair enough. Bridgetenders must surely be obstinate or it would not be found necessary to waste tons of fuel in keeping several steam whistles blowing wide open for several hours each night and for weeks past. The shore community exhibit a great degree of patience in not lodging a protest with the Mayor regarding the useless nightly nuisance. Some at least supposed the continuous tooting was a necessity like the fog horn.

The steamship Northwestern arrived in Montreal on Friday last from Chicago en route to Philadelphia. After loading a cargo of coal at Montreal she will sail direct to Wabana, Nfld., to load a cargo of iron ore for Philadelphia.

DETROIT.

Special Correspondence to The Marine Record.

The work of dismantling the old steamer Greyhound is progressing rapidly at the Orleans street yard of the Detroit Ship Building Co.

Eddy Bros. & Co. have purchased the tug Annie Moiles from the Saginaw Bay Towing Association and will take the boat to Blind River, Ont., to tow logs.

The Detroit Ship Building Co. could give more men work at its yard at Wyandotte. Supt. C. B. Calder says that there are openings for about 100 men and that the positions will be good for the entire winter.

The body of Frank Bemen of Toledo, one of the crew of the tug Christian, which was run down by the steamer J. J. Albright, was found on the beach a few miles below Amherstburg. The Christian was lost about two weeks ago, and this is the only body to come ashore.

The best water at the Limekiln Crossing on Tuesday was 15 feet 10 inches, and the larger class of boats simply had to lay at anchor until a change of wind took place. This is the new meaning of being windbound. The wooden steamer Shenandoah grounded abreast of Amherstburg while trying the passage.

The passenger steamer City of Cleveland came out of the Detroit drydock on Monday, the repairs on her hull having been completed. She will be taken down to the dock near the foot of First street to have the interior work completed and her cabins refitted. This will take some time and she will hardly go into service again this season.

The new steel ocean steamer Buckman got away from Craig's shipyard this week. Capt. Armstrong, of the White Star Line steamer Arundell, will pilot the new ship to salt water, while Capt. Israel, the master, will assume command when she reaches the sea. F. W. Wheeler, the owner, and a party of friends will be passengers on her maiden voyage.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, Detroit, for the week ending November 12th: Prevailing wind directions for the week, S. W.; highest velocity, 37 miles S. W. on the 12th; mean temperature for the week, 41 degrees; highest temperature, 56 degrees on 11th; lowest, 28 degrees on 6th.

The Longshoremen's Union here is in receipt of a resolution adopted by the marine workers of Milwaukee, to urge upon the officials and members of the Longshoremen's Union the organization of a marine council, in all the leading ports of the lakes, for the purpose of maintaining the rights and principles of the organization, and settling all labor questions which concern the union.

The D. & C. steamer City of Mackinac rescued Fred Cook and Olan Cook from the waterlogged schooner George Irving Sunday morning, on Saginaw Bay. The Irving was bound with a load of cedar from Alpena to Marine City. She was caught in the gale Saturday night on Saginaw Bay, sprung a leak and became waterlogged. The men sought refuge on top of the cabin and were numb with the exposure when picked up by the City of Mackinac.

One of the gentlemen connected with the Detroit Ship Building Co. says that there is no doubt but that the American Ship Building Co. will declare a dividend on the common stock by the first of the year. He states that all of the big indebtedness is about wiped out and that there is a very handsome surplus on hand. He can see no reason why a dividend should not be declared and intimates that he has received information that leads him to believe that such a course will be pursued.

The facilities for handling repair work on hulls, engines or boilers, while they are of the best, what there is of them, have proved inadequate and it is now thought that before long steps will be taken to build a new drydock or greatly improve the present property. The Rivers and the Limekiln Crossing is the most dangerous stretch of water on the chain of lakes and damage cases are becoming so frequent that Detroit is entitled to the largest and best dry dock and one fit to handle anything afloat.

According to John Craig, Jr., there are berths for three more boats at the yards of the Craig Ship Building Co. at Toledo. The labor troubles at the Craig yards have been adjusted, according to Mr. Craig, who says that the plant is now operating without the 200 machinists, who recently struck. Their places have been filled by non-union men. Instead of getting an eight-hour day the Craig Co. gave the men a Saturday half-holiday, which the strikers refused to accept in lieu of their demands, and their services were dispensed with entirely.

The Mackinac Transportation Co., operating the car ferries St. Ignace and Ste. Marie across the Straits of Mackinac, has decided to give up its offices in this city. The ferries are owned by the Michigan Central, Grand Rapids & Indiana and Duluth, South Shore & Atlantic roads, and the headquarters in the future will be either at St. Ignace or Mackinac City. This action was taken because the state tax commission recently put the ferries on the assessment rolls at \$300,000, and it was agreed that as long as the company got no benefits here it might better pay taxes where its boats do business.

BUFFALO.

Special Correspondence to The Marine Record.

Tonawanda ports received 12,000,000 feet of lumber on Tuesday. Large winter stocks are being piled up for local supply.

The official tonnage of the new steel steamer Chicago, as issued by the Bureau of Navigation, is 3,105 gross and 2,546 net tons.

Capt. Lautenslager, local manager for the new tug line, has bought another tug in Cleveland and she will be brought here for harbor towing purposes, etc.

Grain is not being shipped out of the elevators on account of a lack of cars and unless there is a change the next couple of weeks will see the harbor blockaded with grain laden vessels.

Geo. B. Drake, late superintendent of the Buffalo yards of the American Ship Building Co., considers that as a vessel surveyor and superintendent of construction for individual interests, he will have a more profitable field than by continuing his salaried position.

The steamer George A. Flagg, owned by D. R. Hanna, Cleveland, is now on her twelfth and last trip to Lake Linden for copper ore. A new boat, her season record is as above and each down bound cargo has been valued at nearly \$1,000,000. In other words, she has carried in six months cargoes of copper ore alone worth \$10,000,000.

Cargoes loaded from Buffalo elevators into canal boats destined to points east of Syracuse, after November 18, 1901, are not to be insured. If destined to Syracuse and points west thereof the times of ceasing insurance to be midnight November 23, 1901. The time of ceasing insurance from Oswego will be midnight, November 21, 1901.

Extensive improvements in the terminal facilities of the Western Transit Line, the lake line of the New York Central railroad, will be made during the coming winter and be completed by the opening of navigation. The grain handling capacity will be increased 100 per cent. and the package freight 50 per cent., as compared with present facilities.

The Board of Public Works asked that it should be empowered to award the Buffalo Dredging Co. contracts for dredging the City Ship Canal from the Buffalo river to 900 feet, at \$40,375, and for dredging the Buffalo river 1,000 feet southeast from the easterly line of Evans' slip at a cost of \$59,340. These requests were referred to the Harbor Committee.

The following meteorological observations are furnished by the office of the U. S. Weather Bureau, Buffalo, for the week ending November 13: Prevailing wind directions during the week, west; highest velocity 42 miles west on November 12; mean temperature for the week, 40 degrees; highest temperature, 56 degrees on 7th; lowest, 30 degrees on 10th.

A number of the different lake lines have issued notices to the effect that November 22 will be the last day on which freight will be received at New York, Philadelphia and Baltimore, to be transported by steamer to Duluth, Gladstone, Milwaukee and Chicago. Similar notices are issued about the same time each year and all the freight shipped from the east generally arrives in Buffalo in time to catch the last west bound steamer.

W. C. Farrington, vice president and general manager of the Northern Steamship Co., confirms the report that the steamers North Land and North West would continue next summer on the Buffalo-Chicago runs. The rumor that the boats would run between Mackinaw and Chicago was never taken seriously. "It is early now to think of making a schedule for next season," said Mr. Farrington, "but it may be relied upon that the North Land and the North West will continue next season in the same trade they had the last summer. We are not making any arrangements for an exclusive Chicago-Mackinac trade and would not attempt it. I wish to deny the statement that Buffalo is to be abandoned by the big steamers next season."

ANNUAL REPORT OF THE COMMISSIONER OF NAVIGATION.

The report of the Commissioner of Navigation states that the past fiscal year has been the third successive year of notable prosperity and growth in American shipping, exceeding the two previous years. The extent and nature of work under way or projected in shipyards promises an even greater growth for the current fiscal year.

American tonnage has now practically attained the former maximum of 1861. The figures of 1901 compared with 1861 show an increase in coasting trade vessels from 2,704,544 tons to 4,582,683 tons (two-thirds of this increase being on the Great Lakes), a decrease in foreign trade vessels from 2,496,894 tons to 879,595 tons, and a decrease in whaling and fishing vessels from 338,375 tons to 61,940 tons.

Of our total tonnage 3,623,201 tons are wooden vessels, and only 1,901,017 tons are iron or steel. In 1900 Great Britain launched 1,440,000 tons of steel vessels.

Porto Rico appears in the returns with 25 vessels of 5,297 tons, and Hawaii with 64 vessels of 37,149 tons. In the Philippines 2,340 vessels of 102,581 tons (of which 149 vessels of 43,598 tons are steam vessels) are under American protection. Until Congress has so enacted the Philippine vessels are not vessels of the United States.

Although registered American vessels increased 62,435 tons during the year, American vessels carried only 8.2 per cent. of our exports and imports, the smallest percentage in our history.

Our fleet of ocean steamers in foreign trade is too small to be compared with that of foreign nations. It is compared with the fleets of the four large British and German steamship corporations, each of which exceeds the American fleet in tonnage, mileage and business.

The tonnage built and documented in the United States during the past fiscal year comprised 1,581 vessels of 483,624 gross tons. An analysis of this construction was printed in July.

The steel vessels under construction or under contract during the current fiscal year will much exceed similar tonnage built in any previous year. The bureau is advised of 89 such merchant vessels of 355,645 gross tons, to be valued at about \$36,000,000. Besides these, 71 naval vessels of 281,148 tons displacement are building at contract prices of \$78,000,000. In this work 44 plants with a capital of about \$68,000,000, employing about 46,000 men, are engaged.

The building of ten trans-Atlantic steamers presumably rests on anticipated legislation by Congress. Six for the Atlantic Transport Line are building from the same plans used in building steamers in England for the same company. The American cost of a steamer of the Minnehaha type will be \$1,846,800, the British cost \$1,419,200. The American cost of the smaller trans-Atlantic cargo steamers will be \$729,000, for which the British price ranges from \$534,000 to \$486,000.

The difference in wages on American and foreign vessels is considered in detail. In illustration the pay roll (excluding master) of 380 men on the steamship St. Louis is \$11,300; of 427 men on the British Oceanic is \$9,900, and of 500 men on the German Kaiser Wilhelm der Grosse \$7,715. The German is the fastest steamship, the American is the smallest.

The report contains a detailed statement of the foreign voyages of American vessels last year, showing that the American flag was seen much oftener on the North Atlantic during President Jefferson's embargo (1808) or during the cruises of the Alabama than at present. Foreign shipping in our Pacific trade has doubled in three years.

The purchase of the Leyland Line is considered as evidence that American capital is willing to invest in ocean steamships, that there is an advantage to American exporters in American control of ocean steamships, even if not under the American flag and that in the coming development of our ocean transportation facilities the union of trunk railroad lines and steamship corporations will be an important factor. Including the Leyland purchase, American capital owns fully 670,000 tons of steamers under foreign flags, which in actual carrying power exceed all American vessels now engaged in foreign trade. The War and Navy Department also owns 125,847 gross tons of foreign built transports and colliers. By various special acts 56 foreign built vessels of 132,187 gross tons have been admitted to registry American money accordingly of

late years has purchased 931,000 tons of foreign built steel steamers, while since 1891 there have been built in the United States 1,006,000 tons of steel steam vessels of all kinds.

The principal foreign and American ocean mail contracts are printed in full and it is shown that at the present prices of steamships, British ocean mail contracts are more advantageous for steamship lines than American contracts under the Act of 1891.

The report contains the usual statistical tables of American shipping, and also tables illustrating the growth of British and German shipping. It will not be printed for distribution until December.

PORTAGE LAKE CANAL TRAFFIC.

During the month of October there were 545 boats which passed through Portage Lake and their total tonnage was 378,027. This is one of the heaviest months for freight delivery to Portage Lake points during the year. During the month of September there were 450 boats which passed through the lake with a tonnage of 311,490.

There were 104 steam vessels which were bound up, net tonnage 162,971; 131 sail boats, net tonnage 218,056. Bound down there were 135 steam vessels, net tonnage 88,403; sail vessels, 46,835. Summing up the tonnage and class of vessels passing through the canals during the month of October the reports shows there were 335 boats bound up with a net tonnage of 242,789; bound down, 210 boats with a net tonnage of 135,238. The traffic of last month was the heaviest of the year.

STATISTICAL REPORT OF LAKE COMMERCE. THROUGH CANALS AT SAULT STE. MARIE, MICHIGAN AND ONTARIO, FOR THE MONTH OF OCTOBER, 1901.

EAST BOUND.			
Articles.	U. S. Canal.	Canadian Canal.	Total.
Copper, net tons.....	17,387	3,932	21,319
Grain, bushels.....	3,361,351	397,168	3,758,519
Building stone, net tons...	10,175	....	10,175
Flour, barrels.....	1,117,822	159,915	1,277,737
Iron ore, net tons.....	2,520,155	179,087	2,699,242
Iron, pig, net tons.....	3,556	....	3,556
Lumber, M. ft. B. M.....	160,158	250	160,408
Silver ore, net tons.....	....	....	....
Wheat, bushels.....	7,424,740	1,937,907	9,362,647
Genl. Mdse., net tons.....	8,267	8,753	17,020
Passengers, number.....	558	1,925	2,483
WEST BOUND.			
Coal, hard, net tons.....	121,059	6,300	127,359
Coal, soft, net tons.....	374,794	47,366	422,160
Flour, barrels.....	....	50	50
Grain, bushels.....	....	63	63
Man'd iron, net tons.....	23,162	7,722	30,884
Salt, barrels.....	49,019	200	49,219
Genl. Mdse., net tons.....	52,137	16,414	68,551
Passengers, number.....	760	1,596	2,356
Freight:			
East bound, net tons.....	3,241,656	276,544	3,518,200
West bound, net tons.....	578,506	77,839	656,345
Total freight, net tons.....	3,820,162	354,383	4,174,545
Vessel passages, number..	2,277	583	2,860
Reg'd tonnage, net tons...	3,331,483	291,916	3,623,399

Compiled at St. Mary's Falls Canal, Michigan, under direction of Lieutenant-Colonel G. J. Lydecker, Corps of Engineers, U. S. A. Joseph Rip'ey, Assistant Engineer and General Superintendent.

A RECENT Paris telegram says: Speaking in the Chamber of Deputies today on the proposed modification of the subsidies to French merchant shipping, the Minister of Commerce, M. Millerand, said the existing system of bounties had had exactly the opposite effect to that which it was intended. It had forced French shipowners to buy steamers abroad, and had artificially created a fleet of sailing ships, some of which managed to pay as much as 31 per cent., thanks to the large subsidies given by the state. The scale of bounties would have to be revised, so as to favor the construction of steamships in France. The debate was adjourned.

LAKE VS. OCEAN SHIPS.

SAN FRANCISCO, November 4, 1901.

Editor MARINE RECORD:

Your favor of October 28th came to hand in due course and I feel obliged for your favorable opinion of the article reproduced in the columns of your valuable paper, copied from the Commercial News of San Francisco. The subject of ships and steamers is one that in able hands could have been made a much longer and more interesting article. I have no pretensions as a newspaper writer, but I do write occasional articles on subjects with which I am familiar, such as shipping business in general, sugar plantations on the Hawaiian Islands, and kindred subjects. Having been connected with the sea and ships in all parts of the world for more than 40 years, and a master for 25 years, I may claim to have some knowledge on such subjects.

The City of Cleveland is not unknown to us in San Francisco, and in fact the firm with which I am connected have placed large orders for sugar mill machinery, some of which is at present en route. The Kilby Manufacturing Co. is the firm with which we have been doing business. We have had an occasional lake-built steamer here in the coastwise trade, and three have started in the coal trade and in the Hawaiian Island trade between Seattle, Wash., and Honolulu. The first lake-built steamers to arrive on the Pacific Coast were failures, until they had been almost entirely rebuilt and refastened, and by that time had cost as much as a new steamer of twice their size, and so there is considerable prejudice against lake-built steamers still existing, and confirmed by the experience and behavior of those on the Pacific Coast.

Your short trips of two or three days on the lakes are not long enough nor can the sea be rough enough to test the structural strength of your steamers. The twisting and squirming that an ocean-going vessel is subjected to for weeks and in some cases months, have invariably been the cause of the lake-built steamers developing signs of structural weakness. There is no doubt that steamships as strong as any in the world can be built on the lakes. But it is certain that a steamer originally built for the lake trade will never give satisfaction out on the ocean. If steamship builders on the Great Lakes intend to build for the ocean trade, they must give the subject of longitudinal and structural strength some consideration.

To illustrate the case and to revert to the days of wooden shipbuilding along in the middle sixties, I will state the experience of a lake-built wooden vessel named the Joseph Grant, a large three-masted schooner for those days, about 450 tons. Mr. (afterward) Sir R. W. Cameron, of New York, bought her for his Australian trade, renamed her Ontario, loaded her with lumber and sent her on her voyage to Australia, but she never arrived there. After passing the Cape of Good Hope, about 70 days out, the vessel experienced a series of heavy gales and rough seas, but nothing worse than usual in that region. It was more, however, than she could stand and she commenced to break up. She first became waterlogged. Then the crew bound her round with her chain cables, setting them tight by a twisting arrangement. After several days the vessel finally broke in two and the two parts separated. The captain and crew lived for 14 days on the part they were on when finally taken off by a passing vessel and landed at the Mauritius. I was 8 years in the employ of Sir R. W. Cameron and knew the circumstances and persons; was also on board of the vessel Joseph Grant in New York before her name was changed to Ontario. Shipbuilders on the lakes seemed to have no conception of the fearful and immense strains that a vessel sailing the ocean is subjected to, and to have neglected or failed to take the same into consideration when or if they have been building for the ocean trade. I must apologize for inflicting this rambling letter on you unsolicited, a simple acknowledgment of your kindly and courteous letter would probably have been all you expected, and my rough criticism of the workmanship of your lake shipbuilders may be looked on as uncalled for and unprovoked, but just or unjust they will know sooner or later that their steamers have so far, not in any instance, given satisfaction, and if through the columns of your paper you can give them some friendly advice, to build their ships stronger, you will be doing them a real kindness.

Yours respectfully,

WM. G. GOODMAN,
Port Superintendent for Alexander & Baldwin.

Her mother—I saw him kiss you! I am terribly shocked. I did not for a moment imagine he would dare take such a liberty. Herself—Nor did I, ma. In fact, I bet him a pair of gloves he daren't.

THAT FAST ATLANTIC SERVICE.

The Cork correspondent of the London Times gives further information with regard to the much talked of project for reducing to 4½ days the time spent in the journey across the Atlantic. These facts are supplied by Mr. E. Croker, manager of the Cork, Bandon, and South Coast Railway (a relative to the better known Tammany "Boss" of that name), who has been in New York for some weeks conferring with American capitalists on this subject. Mr. Croker states that the Ocean Rapid Transit Co., with a capital of \$30,000,000, all of which is practically secured, has been formed with the object of constructing and operating fast ocean steamers, with suitable railway connections on both sides of the Atlantic. The first line to be undertaken will be a 90-hour (3¾ days at sea) bi-weekly service from Narragansett Bay directly across the Atlantic to Castletown-Berehaven, whereby, in connection with American and European railways and steamers, mails and passengers will be conveyed as follows, including time for all stoppages and transfers en route. The times are calculated from postoffice to postoffice, and not, as is usually the case, from lightship to lightship: New York to London, under 4½ days; New York to Paris, under five days; New York to Berlin under 5½ days; from Boston two hours less; and from Chicago two hours more. From Castletown-Berehaven the vessels are to proceed via Boulogne for Paris, Dover for London, on to Flushing for Germany and the Continent generally. The new steamers will be of the turbine class, oil will be used as fuel, and this will be stored in ballast tanks at the ship's bottom. It is pointed out that the existing trans-Atlantic liners, or such vessels as carry cargo, cannot be driven at greater speed than at present without such a sacrifice of space as would render the enterprise unremunerative. Thus in the steamship Deutschland, in order to secure a speed of 23 knots, the cargo space, which in the steamship Ivernia has a capacity of 11,000 tons, is entirely appropriated by the engines, coal bunkers, etc., which go to make up a motive equipment of 37,000 horse-power capacity. So completely does the motive power fill the hold that the cargo capacity is reduced to 600 tons. To drive such a vessel as the Deutschland at 30 knots she should, for a single trip across the Atlantic, store 200 tons of coal in her bunkers. It is claimed that this speed can be attained without interfering unduly with cargo-carrying capacity by the use of crude Texas oil, which costs but 5d per barrel. With the capital of the new company it is proposed to build six fast turbine steamers, a railway from Castletown-Berehaven to connect with the Great Southern and Western system at Kenmare and the Cork and South Coast system at Bantry, also a landing pier at Berehaven, and certain works at Narragansett. It is also proposed to build later on a fleet of freight steamers, which will discharge American coal at Berehaven and other British ports, thus bringing best American steam coal into competition with Welsh. If the Imperial Government subsidize for the carriage of the mails the vessels will be built in England and carry the British flag; if not they will be constructed in America and carry the United States flag. In the event of the London and North Western Railway Co. being unable or unwilling to accelerate their present mail service by 2½ hours from Euston to Holyhead, the Great Western Railway Company will be asked to give a fast service when the Fishguard and Rosslare route is open. Mr. Croker adds that the promoters not only hope, but urge, that the bridge across the Lee at Cork will be proceeded with as quickly as possible, as the scheme is practically useless via Bantry without this connection. On this point it may be stated that hitherto the Cork Corporation and Harbor Board have not looked with a very favorable eye upon the proposal to bridge the Lee. They fear it would prove a serious obstruction to the navigation of the river, and injure some vested interests connected with the carrying trade of the city. They are not likely to look with more favor upon it now that it is hoped by this means to set up at Berehaven a rival port to Cork Harbor.

VERY high steam pressures are used on some English launch engines. One shown at the Glasgow Exhibition works under 375 pounds per square inch, and, as a consequence, together with high rotative speed, gives great power in a small space—140 horse power at 1,200 revolutions per minute. This engine is of the four-crank, quadruple-stage expansion type, and has cylinders 3¾ inches for the high pressure, 5 inches, 7½ and 11 inches for the other cylinders. There is a feed pump attached, which is driven by a worm on the main shaft.

A RUSSIAN FLOATING DRY DOCK.

I have been informed by the acting consular agent at Fiume, Hungary, that the Societa Fiumana di Costruzione Navale Howaldt Co has just finished one of the best and strongest floating dry docks ever built on the Continent, says United States Consul Chester of Budapest. It is for the Russian Steam Navigation and Trading Co. of Odessa, and is now on its way, being towed by two steamers. The voyage is expected to take at least thirty days.

It has a lifting power of 4,800 tons, and can raise a vessel of this weight in two and one-fourth hours. Constructed in two parts, it has the advantage of putting only one-half into action, in case a smaller vessel is to be lifted.

One part is built on four pontoons, each 11 feet 1 3/16 inches high and 53 feet long, having a lifting power of 2,740 tons. The other part is built on three pontoons, each of the same dimensions, having a lifting power of 2,600 tons. The total length is 381 feet; width 63 feet; width of walls, 8 feet 4¾ inches.

It is fitted with electric light and accommodations for office and cabin for crew.

The construction was begun December 12, 1900, and finished August 18, 1901, employing 600 men a day. The laborers received from 60 to 80 cents a day, and the mechanics from \$1 to \$2.

The exact contract price is unknown, but the dock is valued at about \$403,000.

RELATIVE COST OF BUILDING STEAMERS.

The following letter recently addressed to the Commissioner of Navigation by Mr. B. N. Baker, president and principal owner of the Atlantic Transport Line, shows the present difference in the cost of building ocean screw steel steamers in the United States and Great Britain:

ATLANTIC TRANSPORT LINE,
OFFICE OF THE PRESIDENT,
BALTIMORE, 17th Oct., 1901.

DEAR MR. CHAMBERLAIN:

Referring to my letter of March 16, 1901, and replying to your request with regard to relative difference in cost of ships, our company at present have a contract for two ships with Messrs. Harland & Wolff, Limited, Belfast (one of which will be completed very early in the spring, and the other a little later, say during the summer) of exactly the same size, dimensions and all particulars as two ships we have contracted for with the New York Ship Building Co. of Camden. The cost of the English-built ship, as near as possible (we having just completed two of exactly the same size, dimensions and speed) will be about £202,000 (\$1,419,120). The same identical ship built at the works of the New York Ship Building Co. will cost us a little over £380,000 (\$1,846,800.)

In addition to this we are building two steamers with the New York Ship Building Co. of smaller dimensions, for which we have a contract at £150,000 each (\$729,000). Also two ships of exactly the same dimensions, with the Maryland Steel Co., Sparrow's Point, for £150,000 each (\$729,000). We have two ships of identically the same detail, delivered to us in the last twelve months, built by Messrs. Harland & Wolff, Belfast, one of which cost me £110,000 (\$534,600) and the other £100,000 (\$486,000).

Yours very truly,

(Signed) B. N. BAKER, President.

STATEMENT OF THE VISIBLE SUPPLY OF GRAIN.

As compiled by George F. Stone, Secretary Chicago Board of Trade, November 9.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo.....	2,474,000	1,258,000	854,000	28,000	68,000
Chicago.....	5,643,000	6,926,000	1,531,000	797,000	21,000
Detroit.....	607,000	288,000	43,000	131,000	28,000
Duluth.....	5,785,000	489,000	317,000	296,000	694,000
Port William, Ont..	1,190,000	.....	.....	.....	.....
Milwaukee.....	166,000	97,000	453,000	41,000	201,000
Port Arthur, Ont..	225,000	.....	.....	.....	.....
Toledo.....	535,000	479,000	1,020,000	367,000	9,000
Toronto.....	33,000	.....	1,000	.....	80,000
On Canals.....	2,600,000	172,000	515,000	.....	225,000
On Lakes.....	1,375,000	337,000	323,000	.....	291,000
On Miss. River.....	.....	.....	.....	.....	.....
Grand Total....	41,959,000	12,641,000	7,790,000	2,132,000	2,689,000
Corresponding Date, 1900	60,703,000	6,785,000	12,842,000	1,186,000	3,509,000
Increase for week.....	767,000	.....	.....	88,000	303,000
Decrease ".....	.....	259,000	309,000	.....	.....

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

The steel schooner Loyalty, which changed hands last week, has left for the coast. She will be placed in the oil trade. The schooner Liberty will start for the coast in a few days.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Mutual Fault—Damages.—A close and literal compliance with the requirements of the regulations for preventing collisions is imperatively demanded, and the use by a vessel at anchor, and not in extremis, of a passing signal is a gross fault. *The Maling*, 110 Fed. Rep. (U. S.) 227.

Defense.—When permission of inspector was obtained to crowd a vessel beyond the limit of accommodation provided for passengers, such permission is not a defense to an action for damages to passengers sustained by reason of such overcrowding. *The Valencia*, 110 Fed. Rep. (U. S.) 221.

Contract—Landing—Public Policy.—A provision in a contract between a ship and its passengers that the landing shall not be deemed a part of the voyage is contrary to public policy and void, and does not relieve the carrier from liability for loss of baggage or delay in delivery. *The Valencia*, 110 Fed. Rep. (U. S.) 221.

Towage—Injury of Tow—Liability of Tug.—The owner of a tug is not an insurer against marine perils, and is liable only for the want of reasonable diligence and skill in the towing service; nor is an error of judgment on the part of the master equivalent to negligence. *The E. Luckenbach*, 109 Fed. Rep. (U. S.) 487.

Inspector's Certificate—Evidence.—An indorsement on an inspector's certificate that a steamship had been provided with accommodations for additional passengers should be rejected as evidence of the fact that such accommodations had been provided, when all the testimony shows conclusively that there were no such accommodations on the ship. *The Valencia*, 110 Fed. Rep. (U. S.) 221.

Wrongful Death—Statutory Right of Action.—A cause of action founded on a statute of one state, conferring a right of action to recover damages for wrongful death, may be enforced in a court of the United States sitting in another state, when it is not inconsistent with the statutes or public policy of the state in which the action is brought. *Burrell et al. vs. Fleming*, 109 Fed. Rep. (U. S.) 489.

Contributory Negligence.—A stevedore injured while removing the covers of a hatch by the falling in of a section thereof because of an athwartship being sprung out of line, so that when one of the covers was taken off it failed to support the other covers, is not chargeable with contributory negligence, though he had an opportunity to notice the defect during the three days preceding the accident, when he assisted in removing or replacing the covers, or was present while it was being done; he in fact not having noticed the defect. *The Red Jacket*, 110 Fed. Rep. (U. S.) 224.

Rigging on Ship—Notice of Defect.—Plaintiff, a longshoreman, was injured while attempting to pass from the defendant's ship to the dock. The vessel was about two feet from the dock, and the dock of the vessel was about five feet below the level of the wharf. Plaintiff, in going to the wharf for dinner, climbed to a point from the rail of the ship to a point high on the mast, and across which were fastened ratlines, and, in attempting to reach the wharf, stepped from a ratline which broke, precipitating him into the water between the boat and the wharf. Plaintiff had not asked for a gang plank, but had used the rigging as a means of reaching the wharf for three days, and all on board had used this means. Held, that plaintiff was not guilty of contributory negligence, as he had a right to presume that the rigging, being commonly used for that purpose, was a safe means of exit from the ship. The fact that a gang plank had been out from a vessel to the wharf on two different occasions for the purpose of transferring the captain's daughters to the wharf does not constitute notice to a workman that the rigging is an unsafe means of exit. *McDonald vs. Svenson et al.*, 65 Pac. Rep. (Wash.), 789.

Shipping—Injury to Stevedore—Liability of Ship.—A ship, after discharging her cargo, was turned over to stevedores to be cleaned, repaired, and loaded with grain. In a coal bunker on the lower deck were three trimming holes about four feet across, without coamings or covers. The bunker, which extended across the ship, was lighted only by two doors on one side, which were open when the ship was turned over, but which did not afford sufficient light so that the holes in the deck could be seen. Lieblant's intestate, who was a carpenter employed by the stevedores in making repairs on the ship, with other workmen, and in accordance with their custom, left his clothes in such bunker while at work, and, on going to get them about 6 o'clock in the evening, fell through one of the trimming holes, and was killed. Held that, while the openings were properly constructed for their required use, and the owners were not in fault in that respect, it was negligence for the officers to turn the vessel over to the stevedores in that condition, with the doors open, and with knowledge of the dangerous openings in a place where the workmen would naturally go, without giving warning of the danger, and that such negligence rendered the owners liable for the injury; the deceased, under the circumstances not being guilty of contributory negligence. *Burrell et al. vs. Fleming*, 109 Fed. Rep. (U. S.) 489.



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CLEVELAND, O., NOVEMBER 14, 1901.

AMERICAN OWNED TONNAGE.

The report of Hon. E. T. Chamberlain, Commissioner of Navigation, says that American tonnage has now attained practically the maximum of 1861, 40 years ago. The figures of 1901, compared with 1861, show an increase in coasting trade vessels from 2,704,544 tons to 4,582,683 tons, two-thirds of this increase being on the Great Lakes; a decrease in foreign trade vessels from 2,496,894 tons to 879,595 tons, and a decrease in whaling and fishing vessels from 338,375 to 61,940 tons. Of the total tonnage, 3,623,201 tons are wooden vessels and only 1,901,017 tons are iron and steel. Great Britain launched 1,440,000 tons of steel vessels in 1900.

There are some things that seem to be not quite in accordance with our national standing, when it is stated that "Although registered American vessels increased 62,435 tons during the year, American vessels carried only eight and two-tenths per cent. of American exports and imports, the smallest percentage in the country's history. The fleet of ocean steamers in foreign trade, the report says, is too small to be compared with that of foreign nations. The fleets of each of the four large British and German steamship corporations exceed the American fleet in tonnage, mileage and business."

The report further says: "American capital owns fully 670,000 tons of steamers under foreign flags, which in actual carrying power exceed all American vessels now engaged in foreign trade. The War and Navy Departments also own 126,847 gross tons of foreign built transports and colliers."

The tonnage built and documented in the United States during the last fiscal year comprised 1,580 vessels of 483,469 gross tons. Eighty-nine steel merchant vessels, of 355,645 gross tons, valued at about \$36,000,000, are under construction or contract. Besides these, 71 naval vessels, 281,148 tons displacement, are building. In this work, 44 plants, with a capital of about \$18,000,000, employing about 46,000 men, are engaged.

WIND JAMMING DAYS.

It has long been heralded that the era for jamming the wind with canvas as a means of propulsion had been wiped out of the field of commerce, and, that, as a factor in the oversea-carrying trade of the world the sailing vessel had been relegated to the bye-gone.

While as a general rule, steam has superseded sail, there is still lucrative employment to be found for the sailing craft, and according to the late eminent shipbuilder, Arthur Sewall, there always will be.

Without questioning the construction of hull, whether of wood or steel, the turning out of five to seven masted, fore and aft rigged vessels, seems now to be quite in favor on the coast. It has been found by practical experience that the fixed charges of vessels of this type do not increase in proportion to their size. The six-masted schooners have been cheaper to handle per ton of freight carried than the smaller craft, and now a still larger type has been laid down at Quincy, Mass.—a seven-masted schooner with the freight carrying capacity of a moderate sized ocean liner, or say 6,300 tons, to be used as a collier in the New England coasting trade.

MORE LEGISLATION NEEDED.

In the annual report of James A. Dumont, supervising inspector general of steam vessels of the United States, it is shown that there were eighty less vessels inspected this year than last. The total number inspected this year was 9,173. Mr. Dumont also includes in the report a number of recommendations which will be formulated in a bill to be presented to the next session of Congress. These will include the extension of the inspection service to cover craft other than steam and numerous other devices for the safety of the public traveling on sea and lake. The number of lives lost in the jurisdiction of the steamboat inspection service during the year was 340, or 190 more than for the previous year. This includes the 127 lost with the Rio Janiero at San Francisco in February last.

A RECOGNITION OF HEROISM.

Hon. T. E. Burton, M. C., chairman of the house committee on rivers and harbors, had a pleasant duty to perform last Saturday at Cleveland in presenting Capt. William Packer, 56 Bazetta street, Cleveland, with a life saving medal for an act of bravery carried out 14 years ago and which resulted in rescuing 10 lives from drowning.

The medal was sent to Congressman Burton by Secretary Gage. In making the presentation Mr. Burton said:

"This speaks for itself. Your act, the government believes, was as noble as any ever done upon the field of battle and it delights to honor you with this token of a nation's gratitude to a real hero, in caring for members of society. You risked your life for others, and in the face of what appeared to be certain death saved them from the sea. It is a personal pleasure to have the honor of handing you this medal.

"Thanks are also due to your attorneys, for the department writes me that the evidence in the case was prepared in a manner following its rules to a letter. Unless the details are as properly attended to as they have been in your case, it takes years to get the tangles straightened out."

Mr. Burton then read a signed letter from Secretary Gage in which the facts of the case were reviewed and the added testimonial of the department couched in the following language:

"The extraordinary hazard incurred by you in effecting this remarkable result, is shown by the circumstance that the spars were in imminent danger of being destroyed, and that the mizzen mast, from which the woman was taken, went overboard soon after her rescue. The force of the gale, the violent swaying of the masts, the unusually cold weather, and the fact that you performed the feat unaided, shows the act to have been one of such an extreme and heroic daring to the peril of your life, as, in the opinion of the department, entitles you to the highest honor provided by the law, the gold life-saving medal accompanying this letter."

The medal is a handsome one, and has a large intrinsic value. The front is engraved with a relief representing life-savers making a rescue, while on the reverse is a cenotaph surmounted by an American eagle with Columbia on one side and the American flag on the other. It is engraved with appropriate inscriptions.

It should be mentioned that the firm of attorneys alluded to in so complimentary a manner in the foregoing is composed of W. J. and George W. Shaw, 505 Society for Savings, Cleveland. Messrs. Shaw secured the evidence, put it in the proper form and sent it to the department. Then they called the attention of Congressman Burton to the matter and he saw that there was no delay in its consideration.

LAKE FREIGHT RATES.

In the monthly summary of the commerce of the lakes for September, issued by the Bureau of Statistics, the following freight rates are found:

The traffic taken account of in the following tables, except that reported as passing through the Sault Ste. Marie canals, is coastwise traffic only, and is confined strictly to the commerce between the domestic ports on the Great Lakes and connecting rivers. It does not include shipments to or receipts from foreign ports on the lakes.

The freight rates prevailing this month on the four leading commodities—grain, coal, lumber, and ore—were as follows:

On grain, wheat, Chicago to Lake Erie ports, 1½, 1¼, 1 3/8 to 1½ cents per bushel; Duluth to Lake Erie ports, 2¼ to 2 1/8 cents per bushel. On corn, Chicago to Lake Erie ports, 1 1/8 to 1¼ cents per bushel. On oats, Milwaukee to Buffalo, 1 1/8 cents per bushel.

On coal, the rate from Buffalo to Duluth was 35 cents per ton; to Chicago, Kenosha, and Escanaba, 50 cents per ton; to Milwaukee, Manitowoc, Menominee, and Racine, 60 cents per ton; from Cleveland to Manitowoc, 50 cents per ton; from Erie to Milwaukee, 60 cents per ton.

On lumber, the rate of \$2.50 per thousand feet from Lake Superior ports to Chicago, which has held firm all through the season, was broken this month by the advance of 12½ cents per thousand feet, and \$2.75 per thousand was paid on a few special cargoes both to Chicago and Lake Erie ports.

On ore, the same rates which have been effective all through the season were in effect in September, viz, from Escanaba, 60 cents per ton; from Marquette, 70 cents per ton, and from the head of the lakes, 80 cents per ton to the lower lake ports. These rates are subject to the usual addition of 5 cents per ton to Buffalo.

ST. LAWRENCE INSURANCE RATES.

In a letter to Hon. J. Israel Tarte, Dominion Minister of Public Works, Mr. D. W. Campbell, manager of the Elder-Dempster Co., gives some facts illustrating the discrimination against the St. Lawrence route in the matter of insurance rates.

Mr. Campbell says: "I dislike to bother you, but it is self-preservation for us all as regards the St. Lawrence route. Either the business out of here must stop at the end of August or else the insurance companies will have to treat the St. Lawrence route in a more reasonable manner. For your information, by the Lake Champlain route, the William Davies Co., of Toronto, shipped 80 boxes of bacon. The ocean rate of freight, on this bacon was 6s 2d per ton weight, which of course is an extremely low rate, but this was the rate ruling out of Portland, and therefore we had to meet competition. The rate of insurance charged on this shipment was 55 cents per \$100 more than out of Portland, or on the shipment \$32.45. The freight we received from Montreal to Liverpool on this lot was \$35.40, or, after we had rebated the difference of insurance, \$2.95, or equal to 6d per ton. The cost of loading and discharging this season is three shillings per ton, and we are therefore out of pocket 2s 6d per ton after carrying the stuff to Liverpool for nothing. We had a similar shipment on the Lake Ontario that went out in the first half of October, on which the difference in the rate of insurance was 35 cents. At 6s 3d per ton on this shipment we received \$35.50, but after deducting the difference in the insurance it only leaves us \$15.21, or equal to 2s 8d per ton weight. As already stated, it costs us three shillings per ton to load and discharge this traffic, and we are therefore out of pocket, after carrying the shipment for nothing, 4d per ton. There may be glory in running the boats to the St. Lawrence, but we fail to see where, from a commercial standpoint, the profit is to come in on business like this. How can it be expected that an increased trade will come to the port of Montreal with drawbacks such as I have above cited?"

Shipping—Dead Freight.—Under a charter which required the ship to go to the port of loading, "or as near as he can safely go," and required the charterer to load a full cargo of ore, where the ship could not load a full cargo at the berth assigned her by the charterer, because of a bar in the harbor which she could not cross, it was the duty of the charterer to complete her load outside the bar, no custom to the contrary being shown, and his failure to do so renders him liable for dead freight. Bacon vs. Ennis, 110 Fed. Rep. (U. S.) 404.

STEAMER LIBELED FOR ADVANCED WAGES.

For refusing to pay a sailor the sum of \$9.63 which he says is due him for wages, the steamer Maryland was tied up by the United States marshal at Milwaukee on Saturday last.

The dispute which led to the instituting of legal proceedings in the federal court is not even as large as this, being the difference between \$1.50 and \$1.75 a day. The captain of the boat refused to pay the sailor this difference, and rather than give in permitted the sailor to complain to the United authorities, who issued the proper papers, given to Deputy Marshal Johnson for service.

Before the proceedings can be dismissed the cost to the owners of the Maryland will be far greater than the small sum claimed by the sailor. The raise in wages recently granted sailors at Milwaukee and other ports is responsible for the difficulty.

John P. Marquist shipped as sailor for a trip to Milwaukee at \$1.50 a day. On arrival he ascertained that wages had been advanced, and immediately claimed that he should benefit and also have an increase. He made a demand for wages at the rate of \$1.75 a day.

When Marquist made his demand on the captain, the latter refused to make the desired payment, but offered a check by accepting which Marquist would receive \$1.50 a day for his time. The sailor refused the proffered check. Doubtless the other sailors on the boat were watching Marquist's movements, and were prepared to demand an increase, so that the captain facing this condition, declined to make any payment at the advanced rate.

Marquist hid himself to the office of the United States court commissioner and set the machinery of the law in motion, and in its end, it turned out a monition, which held the boat at her dock.

The Maryland was unloading coal at the Northwestern docks. Her managers are David Vance & Co., and to again gain control of their property it was, of course, necessary to furnish a bond.

LAKE FREIGHTS.

The freight market is brisk at advancing rates all round though the ore shipping days are fast drawing to a close on account of the frosty weather at loading points. The advance of 5 cents from Escanaba now makes the rate 85 cents, from the head of the lakes \$1.25, Marquette to Buffalo \$1.20.

There is an anxiety to get coal forward and 70 cents is freely offered to Lake Michigan with the usual advances to minor ports. Charters for Portage are being placed at 45 cents and while 35 cents is the quoted figure for the head of the lakes the light chartering would indicate a 5 cent raise within a day or two, although tonnage is plentiful.

Grain charters are not as plentiful as had been expected up to this time and the old rate of 3¼ cents on wheat from the head of the lakes is still quoted, Chicago 2 1-8 cents on wheat, corn 2 cents. A small cargo paid 2½ cents on wheat this week. A grain blockade is looked for at Buffalo so that few, if any, charters are being fixed ahead.

All that can be done in shipping lumber is being done at the increased rate of \$3.25 per M feet from Duluth, an advance of 25 cents for the week. The loss of several lumber laden vessels during the recent bad weather has limited the carrying capacity, although some other tonnage has entered the lumber trade on account of the new and higher rate, but they only count on making one more trip.

ST. LAWRENCE RIVER NAVIGATION.

ST. CATHARINES, Ont., November 11.

To the Editor of The Marine Record:

During the past season I have had the pilotage of the fleet of boats owned by the Northwestern Steamship Co., Chicago, taking them either way between the Welland Canal and Montreal.

At this writing these boats are all safely down below Montreal, the last boat reaching there on Saturday.

I would like to state that we have had no trouble in handling this fleet in the canals or river St. Lawrence all season, and, being a pilot on all the rivers and lakes between Montreal, Duluth and Chicago, I can safely assert that there is no more danger in piloting those large boats up or down the St. Lawrence river and canals than there is in taking them up or down the Detroit or Sault Ste. Marie rivers and I consider the 14-foot channel through to Montreal perfectly safe, as I have tested it fairly and well this season.

JAS. DELANEY.

TO UNIONIZE LAKE LABOR.

Milwaukee marine workers have taken the initiative in the matter of attempting to unionize all workers connected with shipping, by organizing the Marine Council of the Port of Milwaukee. At a meeting recently held the council adopted the following resolution:

"To the Officers and Members of the International Longshoremen's Association, the Brotherhood of Marine Engineers, the Marine Pilots' Association, the Tugmen's Association, the Firemen's Association and the Lake Seamen's organization—Greeting:

"Whereas the intended plan of forming a marine council in all the leading ports on the chain of lakes, and

"Whereas the issue was inaugurated in the port of Milwaukee in forming said council and has proved to be a success, and

"Whereas, through delegates representing each local body of maritime workers every side of the question can be fully understood; and

"Whereas many evils or tangible matters can be settled or supported through committees or other powerful sources which follow such co-operative body, and

"Whereas, through all efforts of struggle to maintain our rights and principles this is the only solution whereby a national and local organization can maintain a solid front and achieve successful victory in all undertakings, therefore be it

"Resolved, by the marine council of the port of Milwaukee in its regular session assembled, to urge upon the officials and members of the organization above mentioned to take an active part in this important issue which is the only solution in the future, and it be further

"Resolved, that a copy of this resolution be sent to all officials of marine organizations on the chain of lakes."

Several hundred copies of the resolution have been sent out and word has been received that active work in organizing councils will be started at the close of navigation. This delay is due to the fact that the sailing community and members are not at their home ports to attend meetings. Those who will be members of the council include engineers, captains, firemen, lookoutmen, watchmen, and in fact every class of service employed on vessels.

LETTERS AT DETROIT MARINE POST OFFICE.

NOVEMBER 13, 1901.

To get any of these letters, addresses or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of his list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Allen John L.
Anlin Geo., Houghton
Allen James, Ionia
Brown Wm., Rhodes
Bonnell Amy
Bedford J S
Bandlow Alb't, Montana
Brink, Chas., Trevor
Carbine Tim, Vail
Conner Wm., Rhodes
Chapman Mil'd, Bielman
Clements Bert, Maricopa
Clements Burton, Richards
Cronan Mrs J
Crowley P J
Coppin J B
Craddock Geo., Andaste
Dennery F E, Lehigh
Dawson D J
Durney P
Dunn Jno J
Donahue Chas O
Darling H S
Ewert A J
Fox Etta-2, Clinton
Freeman W S, Jno Owen
Ferrier Jack C
Fortain Henry, Ranney
Fuedoe Fred
Gunsally C I, Mohawk
Gardner H W
Generous P R, Jno Owen

Hansen Martin
Henning Wm.
Kjellman Karl, Schuck
Kromroy Edw., Trevor
Lindberg Edw, Magnetic
Larmer Jno A, Maritana
Loughway Jno, Hoyt
Murdock Louis
Mero Geo, Neptune
Montgomery D, Granada
Mogan John
McClellan Jno T-3, Nicholas
McKittrick A W,
McRae Alex, Trevor
McGlennon Henry, Clinton
McRae Alex, Trevor
Plepi W, Zenith City
Papinaw Frank
Ryan Jos, Vail
Russell E F, Wallace
Dunn Jno J
Donahue Chas O
Darling H S
Ewert A J
Fox Etta-2, Clinton
Freeman W S, Jno Owen
Ferrier Jack C
Fortain Henry, Ranney
Fuedoe Fred
Gunsally C I, Mohawk
Gardner H W
Generous P R, Jno Owen

F. B. DICKERSON, P. M.

H. W. JOHNS Mfg. Co., William street, New York, sends out this week a neat pamphlet on "Fire-Felt Pipe Covering." In Fire-Felt the air cells are numberless and microscopic in size and no circulation of the air is possible; therefore, Fire-Felt embodies the most successful application of the air-cell principle yet devised.

FLOTSAM, JETSAM AND LAGAN.

Capt. James Davidson is preparing to build two large wooden schooners to be ready for service next May.

The steamer Stephenson, which struck a rock at Buffalo, will be repaired at Lorain. She will be docked Friday.

Capt. Hiram Henderson, master and owner of the schooner Ishpeming, will remain ashore. Capt. Henderson has sailed for 40 years and is one of the best known masters on the lakes. Capt. Albert Merrill was appointed master of the Ishpeming.

A correspondent writing to a contemporary pertinently asks: "If by adding an extra mast, rigged fore-and-aft, to a full-rigged ship you have a shipentine, should you not by adding an extra mast rigged fore-and-aft to a brig have a brigantine, instead of a barque?"

The voyage of Capt. J. C. Voss and A. K. Luxton from Vancouver to Apia, Samoa, in an Indian dugout canoe is a record-breaker in the line of adventure. These Canadians have discounted all rivals in making a journey of 6,400 miles in such a craft. Their present purpose is to go around the world.

The Central Passenger Association lines have announced sailors' rates as half fare on and after November 11 from all upper lake ports east. This is done to enable mariners who place their boats in winter quarters to return East cheaply. In former years it has furnished considerable business for the railroads.

According to an Odessa dispatch, the Russian Government is considering the construction of a gigantic waterway from Riga, in the north, to Kherson, near the mouth of the Dnieper on the Black Sea. It is believed that large sums have already been spent at Kherson, which is eventually to be the terminus of a grand canal system, joining the Baltic and the Black Sea.

The Counselman steamer Northwestern had a tempestuous passage across the Atlantic before she arrived at Quebec. She encountered a hurricane which reached a velocity of 85 miles an hour, and a heavy cross sea, with now and then a big iceberg, made things interesting on the little freighter. She brought the Muskegon lifeboat Mayo across unharmed.

The new passenger steamer Quebec, for the Richelieu & Ontario Navigation Company, which is under construction at Bertram's shipyards, is almost completely plated up, and will be ready for launching about the middle of December. The new steamer is 320 feet in length, being 30 feet longer than the Kingston, the steamer built for the same company last winter.

Rieboldt, Wolter & Co. have secured the contract to build a new fish tug for Capt. A. Kahmbach, Sturgeon Bay, Wis. The craft will be 60 feet over all, 15 feet beam and 7 feet depth of hold. She is to be finished on or before March 1st. The new craft will receive the boiler and engine of the tug M. A. Knapp, whose place she is to fill, it being the intention to dispose of the hull of the latter.

The officials of the North German Lloyd Steamship Co. gave a dinner on October 25 on board the reconstructed steamship Bremen at the company's pier, Hoboken, N. J. The Bremen was badly damaged by fire on June 30, 1900, and has since been almost entirely rebuilt by the Vulcan Ship Building Co. at Stettin, Germany. Frank Presbrey, who presided, recalled the incidents of the great fire and said the Bremen was now equal to the best of the company's fleet. Captain Nietrich responded to a toast.

The American Steam Gauge & Valve Manufacturing Co., Boston, Mass., the well known manufacturers of steam gauges, pop safety valves, Thompson indicators and engine and boiler fittings, have been awarded a gold medal at the Pan-American Exposition. Visitors to the exposition, will no doubt, remember the display of this house, as it attracted general attention. Their steam gauges and engine fittings which won for them this medal are equal to any products of similar houses, and their numerous patrons will congratulate them upon the honors they have carried off.

The new lightship for the Otter Rock, near Islay, on the west coast of Scotland, has strikingly novel features. The vessel is built of steel of extra strength, and the hull is divided into three water-tight compartments, the middle one containing two large welded steel gasholders. The lantern is placed on a cylindrical mast at a height of 25 feet. A large fog-bell in a belfry on the deck not only has an ordinary tongue, that is made to strike by the vessel's roll, but is also provided with a special clapper that is operated by the passage of the gas from the holder to the burner. No crew is needed, the supply of gas being sufficient to operate light and bell for several months without attention.



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MARINE INSURANCE—BARRATRY.

The series of articles published over the signature of the author of this have aimed to give their readers short treatises citable in pertinent cases. The use of the generally published reports (Supreme, Federal, etc.) have been avoided, except in clarifying occult points. Like rare minerals or herbs from some inaccessible Himalaya height, the only value aspired to for them is variety of illustration and capacity for turning the scale in close contests.

The "barratry" of marine insurance could be defined in naval charges as "disobeying the lawful orders of a superior officer" (168 U. S. 124; 112 U. S. 506). A recital of facts from the court-martial record of one B. (filed in case 21,216 Court of Claims) will show how far the Navy Department has gone in insisting on obedience to questionable commands; i. e., in declaring an act barratrous when seemingly required by law. Whether its decision was right or wrong is not implied here. It was made. By applying to it an attorney's faculties for generalization, serviceable analogies may be induced which there is no room to unfold here.

Being charged with refusing to perform service in the Navy, B claimed that his orders directing him to "proceed from Washington to" the violation, in California and elsewhere, of sect. 1467, R. S., were illegal and non-obedience to them demanded by statute. He had been, two years before, tried by the supposed "court-martial" whose illegality is revealed on page 9 of the Cleveland MARINE RECORD, of July 11, 1901, and on the charge mentioned in the RECORD of October 17, 1901, p. 8. Neither charge nor "court" apparently supported the sentence, which was to "retain his present number in his grade for two years" (not longer). But Sec. 1467 R. S. enjoined, "Line officers shall take rank in their respective grades according to the date of their commissions." His objection to participating in the violation of that statute was over-ruled by court-martial, Navy Department and President without remark, so that the disallowed objection is the measure of the decision. Had it been allowed, the Judge-Advocate-General of the Navy would have been convicted of inflicting illegal punishments. No flaw is perceived in the over-ruled argument, which follows here:

"By reference to the Navy Register it is evident that the accused is forbidden to take rank according to Sec. 1467 Rev. Stat. He has shown, and it has not been answered, that the 'court' which, in effect, ordered him to do duty thereafter in a lowered position, was really no court, a mere body of officers. Even if the 'court' were valid, its decree would be the edict of a subordinate tribunal, directly contrary to the mandate of that law-making power from which this tribunal gained any power whatever. An officer's commission is given him by the President. His position derived from that commission is fixed by Congress, and no subordinate power like a Secretary and his court, can reverse or undo legally the action of the transcendent authority to which they are subordinate. The statute fixing rank (Sec. 1467) exists today. The act of June 17, 1878, adds, 'The rank of officers shall not be changed except in accordance with the provisions of existing law, and by and with the consent of the Senate.' It is admitted that no change in the place of the accused has been made 'with the advice and consent of the Senate.' Therefore, he has been put out of an office whose 'rank' is 'according to the date of his commission,' and put in another far below it in position, and told to do duty there. If any member of this court were suddenly deprived of his rank and degraded and then told to do duty in his new position, would he regard such orders as legal? Winthrop on Mil. Law (1st ed.) p. 817: 'Lawful command. The word lawful goes to point to the conclusion affirmed by all the authorities that a command not lawful may be disobeyed, no matter from what source it proceeds.'

"The commission is a contract; on the one hand he owes duties, on the other there is due him privileges. Relation to the government is one thing; to a mere agent of that government, such as the Secretary of the Navy, another. To deprive of rank, dignity and station is to take away his old commission and thrust upon him a new one of another date. From the latter he, of course, owes no duties to the one who thrust it upon him, never having accepted it. During this period of usurpation his old commission, of another date, becomes latent, and his duties to the government are held in abeyance, until he is allowed to exercise his real commission, just as if he had temporarily resigned or temporarily exercised no commission. A mere agent of the government cannot, as far as possible, oust him from his commission and at the same time claim duties to him from that."

"The great lawyer at the head of the Navy Department would recognize this logic, if the court will give the accused an opportunity to go there before final action." (No such opportunity was given). Harwood on Naval Courts, p. 7: 'Though the citizen becomes a seaman or soldier, he is nevertheless a citizen.' Dig. J. A. G. 468: 'The number of an officer in the list of his grade is not an incident of his rank, but of his appointment to office, as conferred and dated.'

Whether or not B was justified in disobeying his orders to collide with Sec. 1467 R. S. was eliminated by the fact that he never disobeyed them. He reported, en route, to the Navy Department that ill health was the cause of his delay between Cincinnati, O., and Mare Island, Cal.; that this incapacity resulted from exposure received in the line of duty, and that it disabled him from performing "duty" at sea, fortifying this report with the proper physician's certificate. No report by him was ever charged to be untrue. He was convicted on the ground that "being physically able to travel," he refrained from subjecting the United States to the useless mileage expense of further progress from Washington to Mare Island, Cal., and the mileage expense of orders home or to sick leave.

All this was put in evidence by the United States, together with the added fact that he did not make the delay and deviation in his journey (via Cincinnati, New Orleans, Los Angeles) except with the tacit permission of the Navy Department, which declined to order him otherwise, although B invited instruction by constantly keeping it informed of his address. The government's evidence also established the fact that no rebuke would have followed but for a supposed "disrespectful" letter asking a court of inquiry to decide on the legality of orders incidentally compelling an inevitable violation of Sec. 1467 R. S. It is this letter which is referred to in the remainder of B's argument:

"The accused is unable to defend himself against the allegation that the letter in the 2d specification of Charge III was disrespectful, for the reason that he does not see what is complained of in the letter. If he could have written such, his motive would have been, in doing so, to draw a parallel between the infliction of punishment by flogging, in violation of art. 49, sect. 1624 U. S. Rev. Stat., and the infliction of punishment by degrading in rank, in violation of another, sect. 1467, of the same Revised Statutes. The placing him on duty in a lowered rank in violation of this statute would be equivalent to prolonging this illegal punishment, for only while on duty in the Navy would he be subject to the incidents of working, as it were, under a new commission as ensign, subsequently dated; his own being in abeyance. The Secretary of the Navy represents the fountain of discipline in the Navy. Yet even he would not submit, nor advise others to submit, to the illegal punishment of flogging. Why should he advise a subordinate to submit to a punishment which, when brought to his notice, is equally a contravention of the statute?"

"Any general power which a former court-martial may have of inflicting punishment, under a general statute, is

modified by statutes which give laws for the Navy, that the officers thereof, cannot, by sentences of their own, overrule. Inasmuch as the accused's rank has not been changed 'by and with the advice and consent of the Senate' he does not see how the Secretary has the power to prolong the penal consequences of his court-martial by displacing him from the position the law gives him, and putting him in another, where he will be always at least liable to feel the effects of it, whenever on duty. As the 'disrespectful' (?) letter states, the accused, when he received a commission from the President dated July 2, 1882, did, in accepting it, not only accept the office of ensign, but also one of more limited sphere, an office whose rank and degree was fixed by statute. Displace the accused from that, and where do you find his obligations to appear on the Navy Register anywhere else? The latent rights which appertain to his commission he still holds, and refuses to relinquish. But the fact that he has a right to something else than he gets, does not render him under obligations to accept what he gets. It seems to the accused that it would have been wise to have left the decision of this point to the civil courts, where it is now pending, and to have authorized him to be present to assist at such trial, but since it has been insisted that a naval court should decide this legal point, which is a new one, he can only strive to make it clear to them.

"An order can be unlawful in more ways than one. When the term is used as it is commonly, one thinks of some unlawful order, to commit murder or the like. But it would be equally unlawful, as unauthorized, for the Paymaster-General, or Chief of Bureau of Ordnance, to detail officers to sea.

"It would be unlawful for the Secretary of the Navy to give an order fair enough on its face, to one who was really a civilian, and outside of the Navy altogether. It seems to the accused equally unauthorized for the Secretary of the Navy to tell a citizen to take a place in the Navy other than the place to which he has a right under the laws of Congress. If he cannot do that, how can he tell him to do duty under those illegal conditions?"

"It must always be remembered that the Navy is not an absolute monarchy, as it were, but rather a limited one. If trouble arises from an officer's refusal to obey an illegal order whose fault is it, the higher authority who broke the law, and gave the order; or the subordinate victim?"

"Op. J. A. G. of the Army p. 9: An officer is not punishable for disobeying an unlawful order. P. 10: A member of a post band who refused to obey an order of the post commander directing a band to play in a town in the neighborhood of the post for the pleasure of the inhabitants was not chargeable with a military offense; such an order not being a lawful one in the sense of the article. In G. C. M. O. 130, Dept. of Dakota, 1879, a soldier was 'convicted of disobedience in refusing to assist in building a private stable for an officer: the finding was disapproved on the ground that such an order was not lawful.' Dig. J. A. G. 208: 'A soldier was ordered to march with a detachment across Texas border into Mexico in pursuit of marauding Indians. Held in 4 Op. At. Gen. p. 55. 'Whether a disobedience of an order to march for such a purpose within the territory of a foreign nation with which the world was at peace and which had not authorized an entering of its domain of armed forces of the U. S., would be a disobedience of a 'lawful' order, and a military offense, was very questionable.'

On this B. was "dismissed from the naval service", and the Secretary of the Navy triumphantly acquitted of having given an illegal order.

GEORGE F. ORMSBY,
Washington, D. C.

Defects in Ship—Injury to Stevedore—Negligence.—There is negligence rendering a ship liable to a stevedore injured while taking off the covers of a hatch by a section falling in because of an athwartship being sprung out of line, so that when one of the covers was taken off it failed to support the remaining covers; there having been no inspection of the hatch for years, and the defect being one that an inspection would have shown.—The Red Jacket, 110 Fed. Rep. (U. S.) 224.

SUN'S AMPLITUDES.

The following approximate amplitudes of the Sun's rising or setting will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the sun's setting. The bearing may be taken when the sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.			
Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Nov. 14...	E. 24° S. = S. 5 7/8 E.	=	E. S. E. 1/4 S.
Nov. 18...	E. 26° S. = S. 5 3/4 E.	=	E. S. E. 1/4 S.
Nov. 21...	E. 27° S. = S. 5 1/2 E.	=	E. S. E. 1/4 S.

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.			
Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Nov. 14...	E. 25° S. = S. 5 3/4 E.	=	E. S. E. 1/4 S.
Nov. 18...	E. 27° S. = S. 5 1/2 E.	=	E. S. E. 1/4 S.
Nov. 21...	E. 28° S. = S. 5 1/2 E.	=	E. S. E. 1/4 S.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.			
Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Nov. 14...	E. 26° S. = S. 5 3/4 E.	=	E. S. E. 1/4 S.
Nov. 18...	E. 28° S. = S. 5 1/2 E.	=	E. S. E. 1/4 S.
Nov. 21...	E. 29° S. = S. 5 1/2 E.	=	E. S. E. 1/4 S.

LAKE SUPERIOR, LAT. 48° N.			
Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
Nov. 14...	E. 27° S. = S. 5 1/2 E.	=	E. S. E. 1/4 S.
Nov. 18...	E. 29° S. = S. 5 1/2 E.	=	E. S. E. 1/4 S.
Nov. 21...	E. 31° S. = S. 5 1/4 E.	=	E. S. E. 1/4 S.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course. If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN AND WISCONSIN.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., November 11, 1901.
ELEVENTH LIGHT-HOUSE DISTRICT.

CLOSE OF NAVIGATION, 1901.—Notice is hereby given that the following named aids to navigation in this district will be discontinued for the present season of navigation on or about the dates as follows:

LAKE HURON.—Spectacle Reef light and fog signal, December 1; gas-lighted and other iron buoys, commencing with Detour Reef Gas Buoy, November 10, and taking them up in succession from Detour south to St. Clair River as rapidly as possible. Their respective stations will be marked by winter markers.

LAKE SUPERIOR.—Granite Island light and fog signal, November 27; Huron Island light and fog signal, November 27; Stannard Rock light and fog signal, November 25; Outer Island light and fog signal, December 1; Michigan Island light, December 1; La Pointe light and fog signal, December 1; Raspberry Island light, December 1; Devil's Island light and fog signal, December 1; Sand Island light, December 1; Isle Royal (Menagerie Island) light, November 25; Passage Island light and fog signal, November 25.

All other light stations will be kept in operation as long as there is any navigation in their vicinity, and all light vessels and buoys, not herein mentioned, will be retained on their respective stations as long as the condition of the ice will permit.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN, ILLINOIS, AND WISCONSIN.

LAKE MICHIGAN, GREEN BAY, ETC.—Lights and Fog Signals Discontinued During the Winter.—Notice is hereby given that during the winter of 1901-1902 lights and fog signals will be discontinued in these waters as follows:

At all stations on the easterly side of Lake Michigan to the northward of North Manitou Light Station, except South Fox Island Light Station, and on the westerly side of the lake at all stations to the northward of Sturgeon Bay Canal Light Station, excepting at Cana Island, Porte des Morts (Pilot Island), Plum Island, Pottawatomie, Poverty Island, and Seul Choix Pointe light stations; at all stations in Green Bay excepting Cedar River, Chambers Island, Menominee Pierhead, Green Island, and Sherwood Point light stations.

On the easterly side of the lake all coast lights and fog signals at stations to the southward of and including North Manitou Light Station, and on the westerly side, to the southward of and including Sturgeon Bay Canal Light Station will be maintained throughout the winter. All harbor lights in the lake, south of the stations named, will be exhibited when vessels can enter the harbors.

By Order of the Light-House Board:

N. H. FAROUHAR,
Rear-Admiral, U. S. Navy, Chairman.

DOMINION OF CANADA—ONTARIO.

UNCHARTED SHOAL OFF BLACK ROCK, ENTRANCE TO PARRY SOUND.—The neighborhood of Black rock, in the entrance to Parry Sound, Ontario, where the steamer Arthur Orr struck on the 3rd May last, as referred to in notices to mariners numbers 17 and 40 of 1901, has been re-examined by Mr. W. J. Stewart, the officer in charge of the Canadian Hydrographic Survey, and a small pinnacle rock with 16 feet water on it discovered. The rock lies S 8 degrees 30 minutes W., 2,500 feet from Black rock beacon, and 450 feet N. E. of Jones Island range. The master of the steamship Arthur Orr is satisfied that this is the rock on which he struck.

The black buoy, mentioned in notice to mariners number 49 of 1901, has been moved to mark the newly discovered rock.

Masters of vessels using this channel should keep the lights exactly in line, and reduce their speed between Red rock and Carling rock.

BAR POINT CUT—GAS BUOY.—With further reference to part 4 of notice to mariners No. 84 of 1901, a red gas buoy showing a fixed white light has been established by the Government of Canada at the south end of the dredged channel off Bar point, at the mouth of the Detroit river.

The buoy is moored in 18 feet of water, about a quarter of a mile northerly of the Detroit river light-house.

Information furnished by Capt. E. Dunn, of D. G. S. Petrel.

F. GOURDEAU,
Deputy Minister of Marine and Fisheries.
Department of Marine and Fisheries, Ottawa, Canada,
26th October, 1901.

All bearings, unless otherwise noted, are magnetic and are given from seaward, miles are nautical miles, heights are above high water, and all depths are at mean low water.

Pilots, masters, or others interested are earnestly requested to send information of dangers, changes in aids to navigation, notice of new shoals or channels, errors in publications, or any other facts affecting the navigation of Canadian waters to the Chief Engineer, Department of Marine and Fisheries, Ottawa, Canada.

The Boston & Lockport Block Co., successors to Bagnall & Loud Block Co., 152 Commercial street, Boston, Mass., have published the late President McKinley's last public address, delivered at the Pan-American Exposition, Buffalo, N. Y., September 5, 1901, in a neat little pamphlet and are presenting copies to their friends and customers.

EASTERN FREIGHTS.

Messrs. Funch, Edey & Co., New York, furnish the Record with the following report of Eastern freights:

During the current week there has been more activity in cotton chartering from Atlantic ports, but the rates obtained do not show any improvement. The charters reported below have absorbed part of the prompt tonnage pressing on this market, but we regret to say has not had the effect of assisting the freight situation. Grain shippers are still unable to work new business and the further recent advance in price has tended to defer any possible opportunity of a resumption in grain chartering. Business from the Gulf seems almost impossible, and one steamer has agreed to shift from Galveston and accept a charter from an Atlantic cotton port. A few fixtures have been effected for timber, but the rates accepted in this case are, if anything, on a lower basis. Tonnage on time charter can still be secured at rates favoring charterers.

As is apparent by our subjoined list of charters, the market shows no increase in activity as far as sail tonnage is concerned, nor has anything occurred calling for special mention.

MARINE ENGINEERS' ASSOCIATION.

I have been handed a copy of a circular sent out by Geo. Uhler, national president of the Marine Engineers' Beneficial Association:

OFFICE OF THE NATIONAL PRESIDENT,
PHILADELPHIA, October 10, 1901.

"DEAR SIR AND BROTHER:—It has been currently reported, and it is very generally believed, that the representatives of the larger transportation interests of the Great Lakes will present propositions and contracts for the services of their engineers for the season of 1902, and make strenuous efforts, supported by unusual and alluring inducements, to have these propositions considered favorably and the contracts signed with a view to the ultimate adoption by all the carriers of a scale based upon a few premature contracts.

"This scheme will in all probability be presented before the close of navigation, and before the engineers have had an opportunity to get together and discuss the general features of the business of the coming season and determine our action and schedule.

"It is scarcely worth while for me to suggest what this means, and in order to maintain the strength and usefulness of this organization and to uphold the fundamental principles of our order (which have stood as the only protection against the designing efforts of those who would unfairly and unjustly sacrifice our interests and our livelihood) I most earnestly request yourself and your assistants to sign the accompanying blank and return it at once to the secretary of your association so that we may have the assurance of your continued loyalty and support."

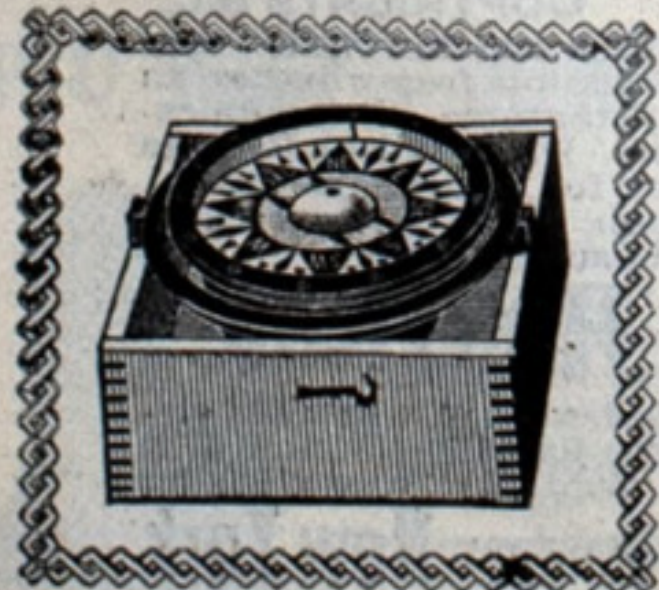
Nothing has yet been learned of the whereabouts of Capt. Taylor, who disappeared mysteriously from the schooner Schuette. The owners have engaged Capt. Hanson to take Taylor's place in command of the schooner.



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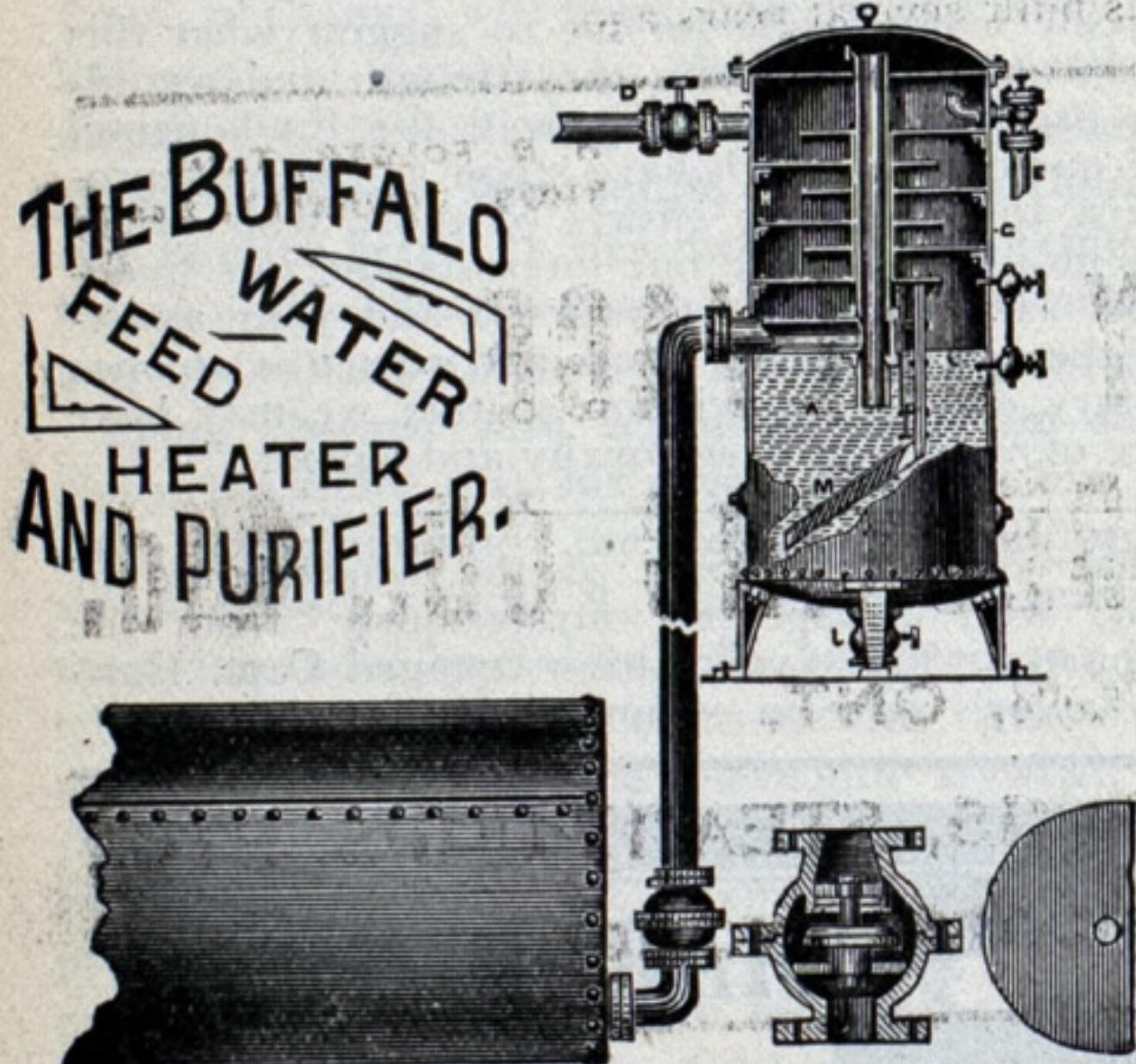
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And the steamer William R. Linn.

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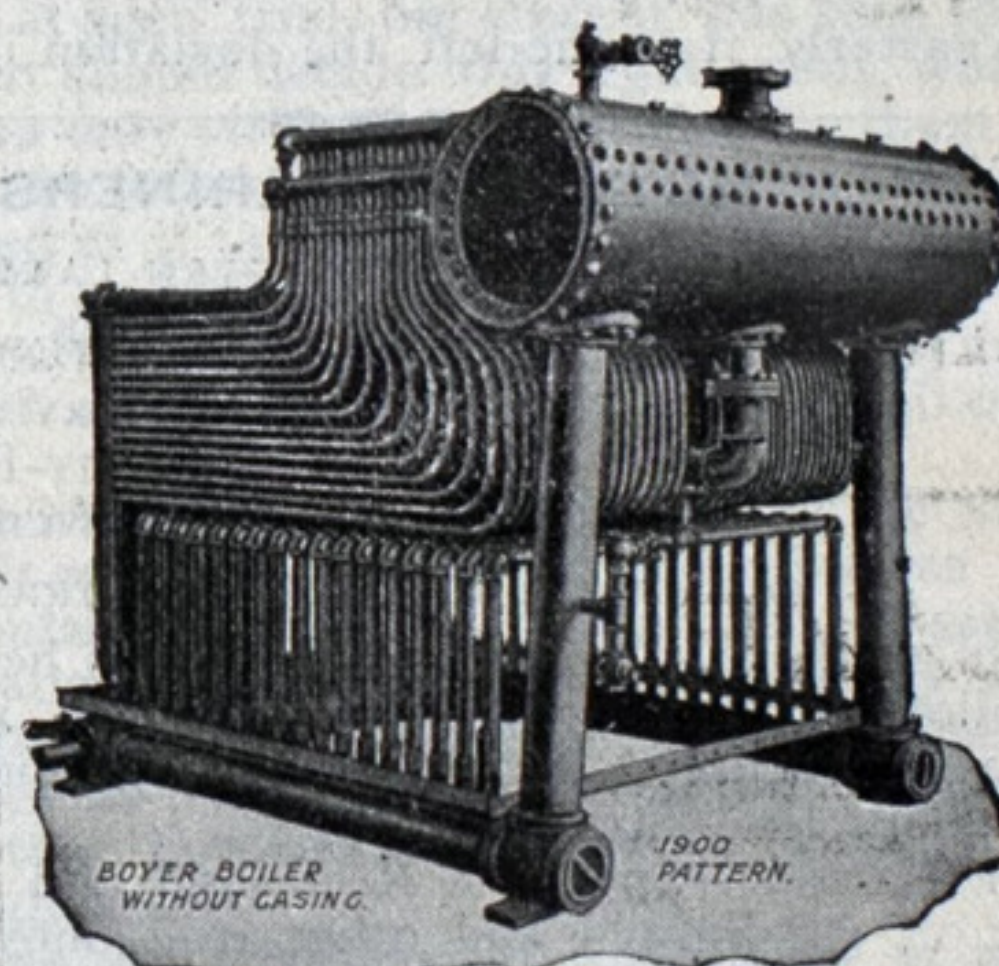


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NOTES ON MECHANICAL EQUIPMENT OF A SHIPYARD.

The necessity for constant improvement in labor-saving tools is called attention to. The division of the work of a shipyard into iron and wood work sections is discussed, and further consideration is given only to some iron working tools. The structure of a ship, and the method of shaping the different parts, are described. Descriptions, with an illustration of each, of the following machines and tools are given: Punching, shearing, countersinking, and planing machines; plate-bending rolls and straightening rolls; plate-edge planing, beam bending, joggling, and bevelling machines; hydraulic punching, shearing, flanging, and riveting machines; pneumatic tools for riveting and boring, and a few electric-driven tools. The general subject of cost of production, and the relation between design of structure and shipyard plant, are discussed. The general arrangement of plant in a shipyard is described, and the principal considerations determining the relative positions of, numbers, and power of different machines are discussed. The general transportation plant of a shipyard is described. The illustrations, about eighty in number, are all lantern slides.—Abstract of Paper by Professor J. H. Biles, M. Coun. I N. A., read at the International Engineering Congress, Glasgow.

CANAL BOATS FOR THE PHILIPPINES.

The fleet of steel canal boats, consisting of 4 steamers and 15 barges, belonging to the Cleveland Steel Canal Boat Co., has been sold to the Philippine Transportation & Construction Co., which has been organized for the purpose of supplying modern lighterage facilities in the harbor of Manila, and also conducting a general transportation business in the Philippine Islands. The present method of handling freight to and from vessels at Manila is by means

of small native craft, which are not in any way fitted for the business, and the steel boats will be very acceptable to merchants and others doing business there.

According to the New York Nautical Gazette the boats are now at the Morgan Iron Works, being taken apart in large sections. Each boat will be divided into 18 or 20 sections. As soon as this work is completed, the parts will be loaded in a steamship and carried to Hong Kong, where they will be put together. The boats will then proceed to Manila.

Mr. H. F. Lyman, of Cleveland, is president of the company, and Mr. Chas. T. Wheeler, also of Cleveland, is general manager. Other prominent capitalists who are interested in the company as officers and directors, are Gen. E. C. O'Brien, S. H. Chisholm, Chas. E. Sherman, W. P. Champney, C. A. Nicola and Ira Taylor.

MARINE PATENTS.

- 685,368. Propeller rudder.—W. S. Avar, Coffeyville, Ks., assignor of 1/2 to T. Geist and E. M. Perles, St. Louis, Mo.
- 685,437. Propelling apparatus for boats. D. R. Sheen, Peoria, Ill.
- 685,591. Cargo vessel.—F. A. Fernex and L. J. Bruer, Paris, France.
- 685,648. Boat.—A. Schoenhut, Philadelphia, Pa.
- 685,757. Swimming-jacket.—Herman J. Glocke and Barnet Fenner, Philadelphia, Pa.
- 685,829. Boat.—Valdemar Englehardt, Copenhagen, Denmark.
- 685,943. Sailboat.—James P. Pool, Brooklyn, N. Y.
- 685,154. Automatic Stop and Emergency Gear for Marine and Stationary Engines.—Henry J. Teiper, New York, N. Y.
- 685,154. Snatch-block.—William Smith, La Crescent, Minn.
- Design 35,263. Rope-coupling.—James L. Frazier, Peoria, Ill. Term of patent 14 years.

NOTES.

GENERAL CILLESPIE, Chief of Engineers, Corps of Engineers, U. S. A., announces an error was made in his office in making up the estimates for river and harbor work for the fiscal year ending June 30, 1903, and incorporated in his annual report. According to the original figures these estimates aggregated about \$12,000,000, whereas, in fact, the estimate totaled \$20,000,000, exclusive of the estimate of \$7,000,000 for works under continuing contracts.

Advices from Port Huron say that the Botsford, Jenks & Duncan projected deal for providing the Grand Trunk railway with an extensive lake connection is progressing favorably and definite steps have been taken to organize the branch of the industry contemplating the operation of the steel ship building plant at St. Clair. Articles of the association have been filed, and the enterprise will be known as the Columbia iron works. The capital is \$100,000, of which Messrs. Botsford and Jenks each own 4,500 shares and Duncan 1,000 shares. It must occur to any one that such an insignificant capital stock as that quoted above does not represent the financial ability of the new company.

At a meeting of the stockholders and directors of the White Star Line at Detroit the capital stock of the company was increased from \$200,000 to \$500,000. This action was taken on account of the construction of the new steamer Greyhound. Contrary to the usual custom when the capital stock of a corporation is increased, the bonded indebtedness of the White Star Line will not be increased, the present stockholders deciding to take up the new stock by paying at the rate of \$10 a share upon their present holdings. In this way there will be no new stockholders. The only outstanding bonds of the company at the present time are about \$214,000, which were issued at the time the Tashmoo was built several years ago.

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LAKE TOURS.

For further particulars see
"Passenger Lines on the Lakes,"
page 18.

BETWEEN

- DETROIT AND CLEVELAND.—Detroit & Cleveland Navigation Co., Detroit.
- CLEVELAND AND CANADA.—Lake Erie Navigation Co., Walkerville, Ont.
- CHICAGO, MILWAUKEE AND MICHIGAN PORTS.—Goodrich Transportation Co., Chicago
- CLEVELAND AND BUFFALO, N. Y.—Cleveland & Buffalo Transit Co., Buffalo.
- TORONTO, MONTREAL AND QUEBEC.—Richelieu & Ontario Navigation Co., Montreal.
- CHICAGO ST. JOSEPH AND BENTON HARBOR.—Graham & Morton Line, Benton Harbor, Mich.
- TOLEDO, WINDSOR AND SAULT STE. MARIE, ALSO "SOO" TO MICHIGAN.—Algoma Central Steamship Line, Sault Ste. Marie, Ont.
- BUFFALO, CLEVELAND, DETROIT, "SOO," AND DULUTH.—The Erie & Western Transportation Co. (Anchor Line), Buffalo.
- CHICAGO, CHARLEVOIX AND MACKINAW.—Mantou Steamship Co., Chicago.
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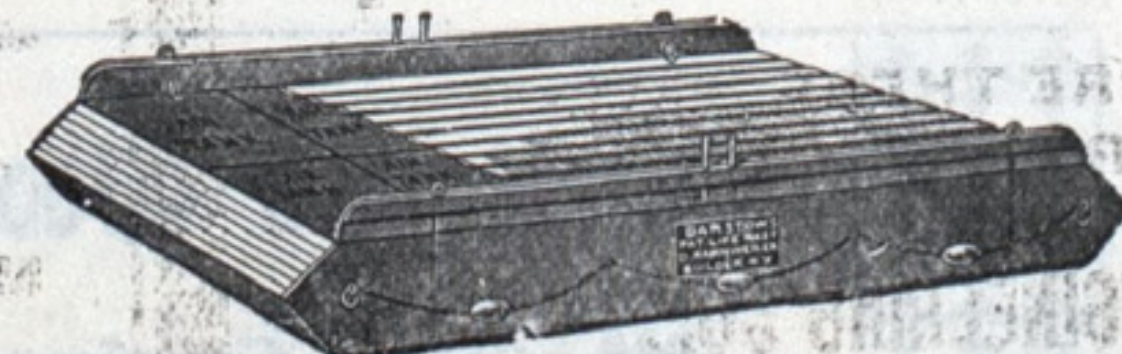
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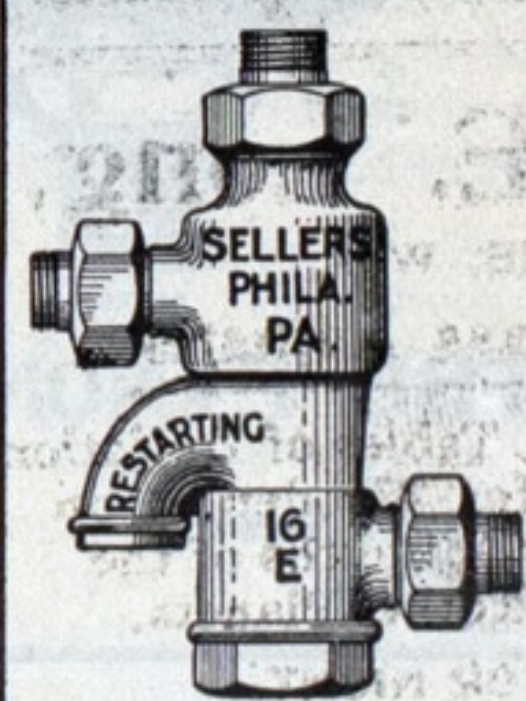
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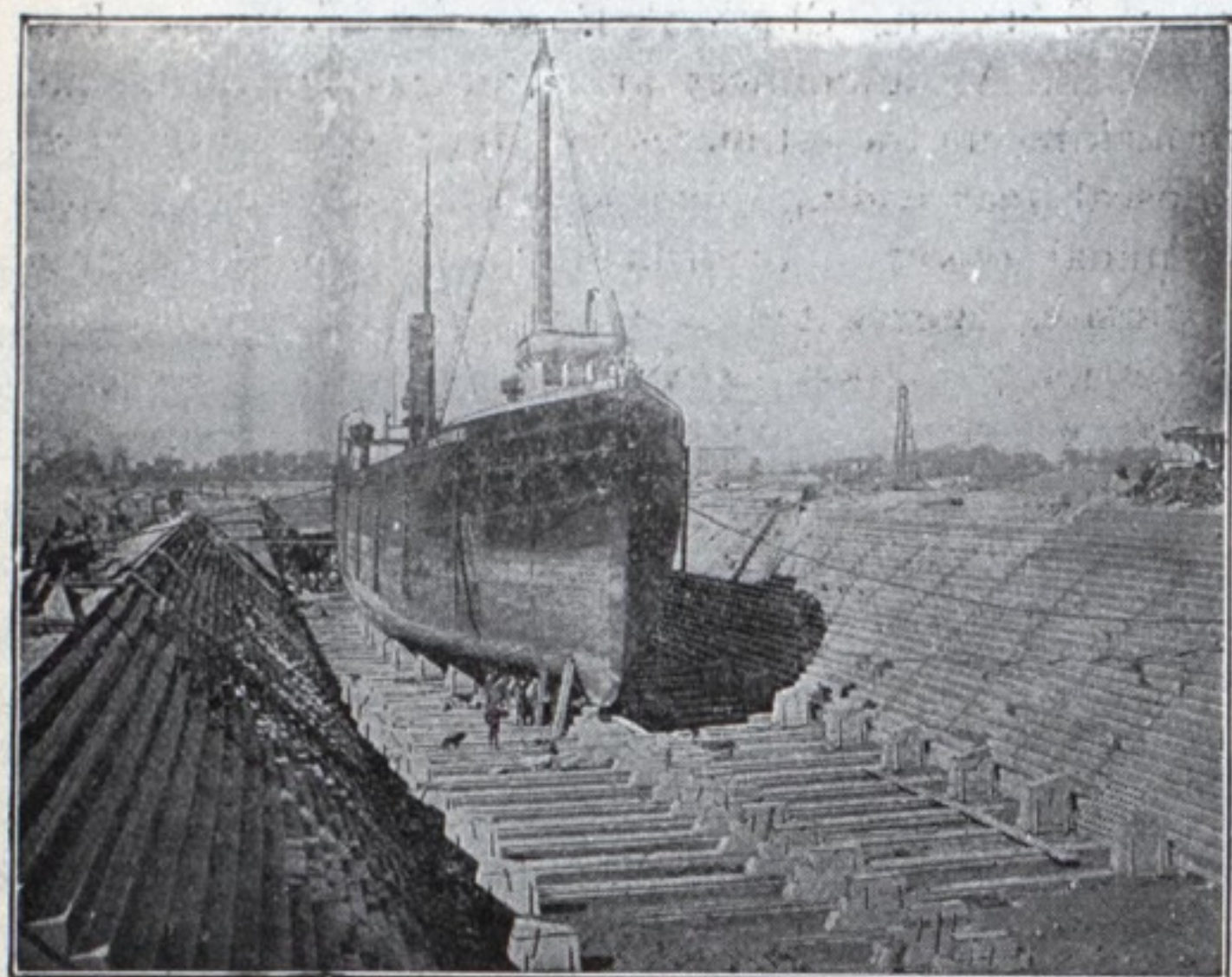
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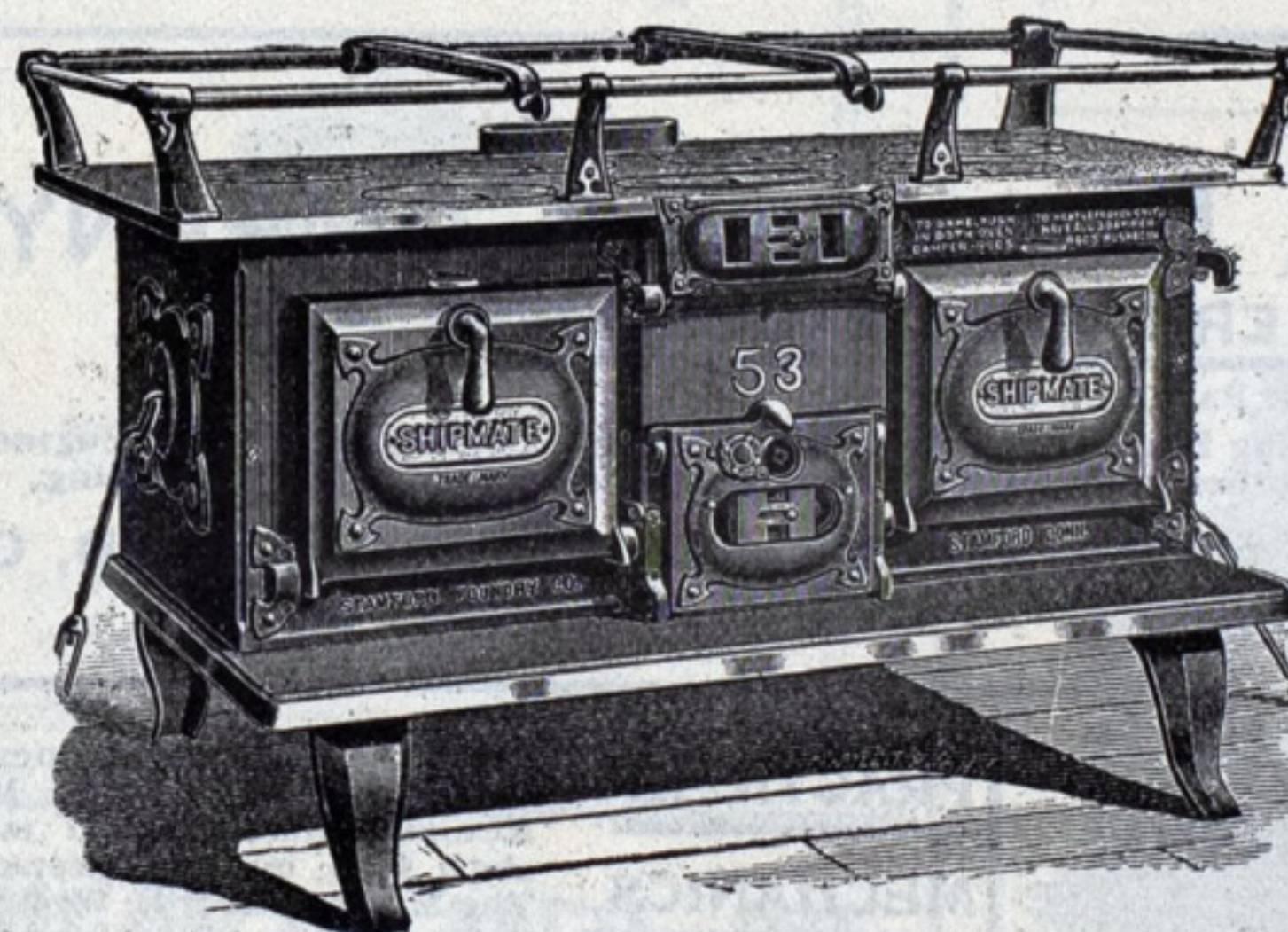
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